

3260/4032 Print System



Service Manual Volume 2

MINOLTA
QMS

1750041-001C

The essentials of imaging

www.minolta-qms.com

Copyright 2001 © MINOLTA-QMS, Inc. All Rights Reserved.

Contents

High Capacity Feeder Technical Manual	HCF-1
Duplex Module Technical Manual	DUP-1
Mailbox Technical Manual	MBX-1
Envelope Feeder Technical Manual	ENV-1
High Capacity Stacker Technical Manual	HCF-1

3260/4032 Print System High Capacity Feeder Technical Manual



SR1450X

MINOLTA-QMS, Inc.

About this Manual	HCF-5
1. The Fault Isolation Procedure (FIP) Flowchart	HCF-7
2. Primary FIPs: Error Codes	HCF-10
2.1 Error Code C3-2	HCF-10
2.2 Error Code C3-3	HCF-12
2.3 Error Code C4-1	HCF-14
2.4 Error Code C4-2	HCF-16
2.5 Error Code C4-3	HCF-18
2.6 Error Code C5-0	HCF-20
2.7 Error Code C5-1	HCF-22
2.8 Error Code C5-2	HCF-24
2.9 Error Code C5-3	HCF-26
2.10 Error Code C8-3	HCF-28
2.11 Error Code C8-4	HCF-29
2.12 Error Code E6-1	HCF-30
2.13 Error Code H1-3	HCF-31
2.14 Error Code H1-4	HCF-32
2.15 Error Code H1-5	HCF-33
3. Primary FIPs: High Capacity Feeder Performance Problems	HCF-34
Inoperative High Capacity Feeder.	HCF-34
4. Running HCF Diagnostics	HCF-37
Entering Diagnostics	HCF-37
Running an Output Test	HCF-38
Running an Input Test	HCF-39
Running a Test Print	HCF-43
5. Removal and Replacement Procedures (RRPs)	HCF-45
RRP 5.1 High Capacity Feeder	HCF-46
RRP 5.2 HCF Rear Cover	HCF-48
RRP 5.3 HCF Left Cover	HCF-50
RRP 5.4 HCF Left Cover Assembly	HCF-52
RRP 5.5 Right Cover	HCF-54
RRP 5.6 Front Cover BTM	HCF-56
RRP 5.7 HCF Feed Motor	HCF-58
RRP 5.8 HCF Drive Belt	HCF-60
RRP 5.9 HCF PWB	HCF-62
RRP 5.10 Lift Up Motor	HCF-64
RRP 5.11 Tray 3 Paper Size Sensor PWB	HCF-66
RRP 5.12 Tray 4 and Tray 5 paper Size Sensor PWBs	HCF-68
RRP 5.13 Trays 3, 4, and 5 Feed Clutches	HCF-70
RRP 5.14 Trays 3, 4, and 5 No Paper Actuators	HCF-72

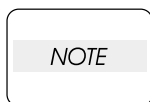
RRP 5.15 Trays 3, 4, and 5 No Paper Sensors	HCF-74
RRP 5.16 Trays 3, 4, and 5 Paper Level Sensors	HCF-76
RRP 5.17 Left Cover Interlock Switch	HCF-78
RRP 5.18 Tray 3 Take Away Sensor	HCF-80
RRP 5.19 Tray 3 Feeder Assembly	HCF-82
RRP 5.20 Tray 3 Retard Assembly	HCF-88
RRP 5.21 Tray 3 Nudger, Feeder, and Retard Rolls	HCF-90
RRP 5.22 HCF Tray 4	HCF-92
RRP 5.23 Tray 4 Front Cover	HCF-94
RRP 5.24 Tray 4 Take Away Sensor	HCF-96
RRP 5.25 Tray 4 Take Away Roll	HCF-98
RRP 5.26 Tray 4 Feeder Assembly	HCF-102
RRP 5.27 Tray 4 Retard Assembly	HCF-104
RRP 5.28 Tray 4 Nudger, Feeder, and Retard Rolls	HCF-106
RRP 5.29 HCF Tray 5	HCF-108
RRP 5.30 Tray 5 Front Cover	HCF-110
RRP 5.31 Tray 5 Feeder Assembly	HCF-112
RRP 5.32 Tray 5 Retard Assembly	HCF-114
RRP 5.33 Tray 5 Nudger, Feeder, and Retard Rolls	HCF-116
6. Locating P/J Connectors	HCF-119
7. PL12 & PL13 Parts List	HCF-127
8. Principles of Operation	HCF-157
High Capacity Feeder Power.	HCF-157
High Capacity Feeder Control.	HCF-158
Mechanical Drive	HCF-161
High Capacity Feeder Paper Path	HCF-170
9. Wiring Diagrams and Signal Information	HCF-179
10. High Capacity Feeder Specifications	HCF-191

About this Manual

This manual serves as both a technical reference manual and as a guideline. Other uses are prohibited. This manual is copyrighted. No portion may be copied, reproduced, submitted to, or read by MINOLTA-QMS, Inc. external customers without the prior consent of MINOLTA-QMS, Inc.

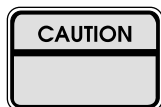
Symbols Used in This Manual

Various symbols are used throughout this manual to either provide additional information on a specific topic, or to warn of possible danger present during a procedure or action. Be aware of all symbols when they are used, and always read NOTE, CAUTION, or WARNING messages.



GEN101

A Note may indicate an operating or maintenance procedure, practice, or condition that is necessary to accomplish a task efficiently. A Note may also provide additional information that is related to a specific subject, or the results achieved through a previous action.



GEN102

A Caution indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.



GEN103

A Warning indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in injury or loss of life.

Section 1 - The Fault Isolation Procedure (FIP) Flowchart

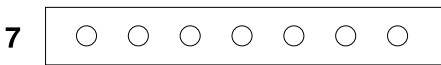
How to Use the FIP Flowchart

1. If you have an error code displayed on the printer Control Panel LCD; go to the **ERROR CODE** box.
2. If you have a HCF operation problem; go to the **HCF PERFORMANCE** box.
3. Follow the arrow leading from your problem box to the individual FIP (Fault Isolation Procedure) that corresponds to your error code or HCF operation problem.
4. Follow the instructions presented in the FIP.
5. If a FIP instructs you to preform a diagnostic test, refer to Section 8 *Running HCF Diagnostics*.
6. Primary FIPs usually direct you to a Secondary FIP. In the FIP Flowchart, the relationship between Primary and Secondary FIPs is represented with dotted lines

How to Follow a FIP

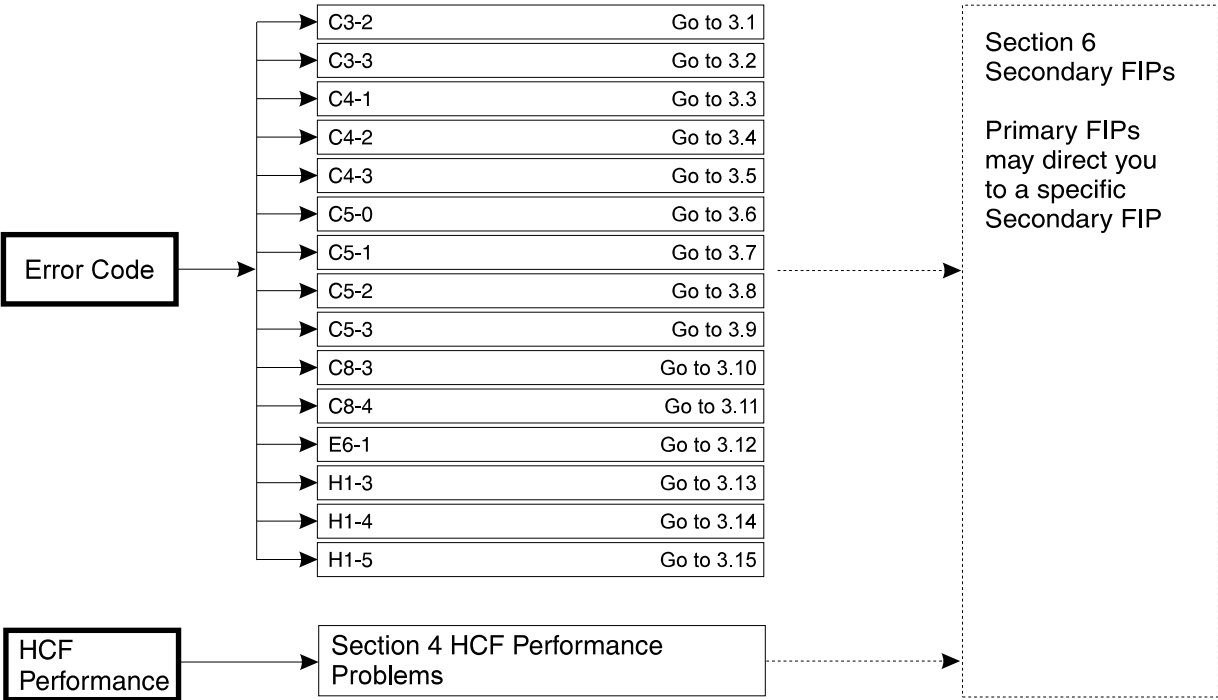
1. Each numbered step in a FIP instructs you to perform a certain action or procedure.
2. The instruction is followed by a question.
3. If your response to the question is **Yes**, then follow the instructions for a Yes reply.
4. If your response to the question is **No**, then follow the instructions for a No reply.
5. FIPs often ask you to replace a component.

Refer to Removal/Replacement provides to find detailed procedures for removing and replacing all major parts of the HCF.

2	500 SIZE SWITCH SIGNAL (FULL) 1. Install a full Paper Cassette into the Feeder. 2. Check the voltage between J302-1 and J302-2. J302  EMPTY = +0.45 VDC LETTER SEF = +2.19 VDC A4 SEF = +2.82 VDC ENVELOPE = +2.62 VDC LEGAL 13" = +2.4 VDC LEGAL 14" = +3.08 VDC Is the voltage between J302-1 and J302-2 at a level that corresponds to the paper size that is loaded in the Cassette?	Go to step 3	Replace the 500 Sheet Size Switch RRP 1.5
---	--	--------------	---

- Step number
- Action with substeps, additional information, and a question.
- Action to take if the answer to the question is YES
- Action to take if the answer to the question is NO

FIP Flowchart



SR1455X

Section 2 - Primary FIPS: Error Codes

2.1 Error Code C3-2

There is a paper jam between Tray 3 and Tray 2 Take Away Sensor.

Logic Control on the MCU PWB sensed that the Tray 2 Take Away Sensor did not actuate within the specified time after the Tray 3 Feed Clutch was actuate.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	TRAY 3 LIFT UP MOTOR TEST Enter Diagnostic Mode - Output Test 7-20 to test the Tray 3 Lift Up Motor function. Does the Motor switch on when you start Output Test 7-20?	Go to step 4	Replace Tray 3 Lift Up Motor (RRP 5.10)
4	TRAY 3 FEED CLUTCH TEST Enter Diagnostic Mode - Output Test 8-2 to start the HCF Motor, and Output Test 8-14 to check the Tray 3 Feed Clutch function. Does the Tray 3 Feed Clutch actuate and the Feed Roll rotated when you start Output Test 8-14?	Go to step 5	Replace the Tray 3 Feed Clutch (RRP 5.13)
5	FEED, NUDGER, AND RETARD ROLL CHECK After performing step 4, open the Left Upper Cover of the HCF. Was a sheet of paper fed out of the tray?	Go to step 6	Replace Tray 3 Feeder Assembly (RRP 5.19)
6	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 7	Replace the Tray 2 Take Away Sensor (RRP 5.16).

2.2 Error Code C3-3

There is a paper jam between Paper Tray 3 and the Registration Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 3, the Registration Sensor did not actuate within the specified time after the Tray 2 Take Away Sensor actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	REGISTRATION SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-5. 2. Insert, then remove, a sheet of paper into the Registration Sensor. Does the Control Panel LCD display H when you insert the paper into the Registration Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Registration Sensor (RRP 4.6 in Vol 1)
4	TRAY 2 TAKE AWAY ROLL CHECK 1. Enter Diagnostic Mode - Output Test 4-1 to start the Main Motor. 2. Open the Tray 2 Transport Cover. Does the Take Away rotate when you run the Main Motor?	Go to step 5	Replace Tray 2 Feeder (RRP 2.13 in Vol 1)
5	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 6	Replace the Tray 2 Take Away Sensor (RRP 3.16 in Vol 1)

Step	Actions and Questions	Yes	No
6	Replace the HCF PWB (RRP 5.9). Does the C3-3 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.3 Error Code C4-1

There is a paper jam between Paper Tray 4 and the Tray 3 Take Away Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 4, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Feed Clutch was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	TRAY 4 LIFT UP MOTOR TEST Enter Diagnostic Mode - Output Test 7-21 to test the Tray 4 Lift Up Motor function. Does the Motor switch on when you start Output Test 7-21?	Go to step 4	Replace Tray 3 Lift Up Motor (RRP 5.10)
4	TRAY 4 FEED CLUTCH TEST Enter Diagnostic Mode - Output Test 8-2 to start the HCF Motor, and Output Test 8-15 to check the Tray 4 Feed Clutch function. Does the Tray 4 Feed Clutch actuate and the Feed Roll rotated when you start Output Test 8-15?	Go to step 5	Replace the Tray 3 Feed Clutch (RRP 5.13 in Vol 1.)
5	FEED, NUDGER, AND RETARD ROLL CHECK After performing step 4, open the Left Upper Cover of the HCF. Was a sheet of paper fed out of the tray?	Go to step 6	Replace Tray 4 Feeder Assembly (RRP 5.28)
6	TRAY 3 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-7. 2. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 3 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 7	Replace the Tray 3 Take Away Sensor (RRP 5.18).

Step	Actions and Questions	Yes	No
7	Replace the HCF PWB (RRP 5.9). Does the C4-1 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.4 Error Code C4-2

There is a paper jam between Tray 2 Take Away Sensor and Tray 3 Take Away Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 4, the Tray 2 Take Away Sensor did not actuate within the specified time after the Tray 3 Take Away Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	TRAY 3 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-7. 2. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 3 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 7	Replace the Tray 3 Take Away Sensor (RRP 5.18).
4	TRAY 3 TAKE AWAY ROLL CHECK 1. Enter Diagnostic Mode - Output Test 8-2 to start the HCF Motor. 2. Open the HCF Left Cover. Does the Take Away Roll rotate when you run the HCF Motor?	Go to step 5	Troubleshoot the drive transmission from the HCF Motor to the Take Away Gear
5	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 6	Replace the Tray 2 Take Away Sensor (RRP 3.16 in Vol 1)

Step	Actions and Questions	Yes	No
6	Replace the HCF PWB (RRP 5.9). Does the C4-2 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.5 Error Code C4-3

There is a paper jam between Paper Tray 4 and the Registration Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 4, the Registration Sensor did not actuate within then specified after the Tray 2 Take Away Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 4	Replace the Tray 2 Take Away Sensor (RRP 5.18).
4	REGISTRATION SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-5. 2. Insert, then remove, a sheet of paper into the Registration Sensor. Does the Control Panel LCD display H when you insert the paper into the Registration Sensor, and does the LCD display L when you remove the paper?	Go to step 5	Replace the Registration Sensor (RRP 4.6 in Vol 1)
5	TRAY 2 TAKE AWAY ROLL CHECK 1. Enter Diagnostic Mode - Output Test 4-1 to start the Main Motor. 2. Open the Tray 2 Transport Cover. Does the Take Away rotate when you run the Main Motor?	Go to step 6	Replace Tray 2 Feeder (RRP 2.13 in Vol 1)

2.5 Error Code C4-3 continued

Step	Actions and Questions	Yes	No
6	Replaece the HCF PWB (RRP 5.9). Does the C4-3 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.6 Error Code C5-0

There is a paper jam between Paper Tray 5 and the Tray 4 Take Away Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 5, the Tray 4 Take Away Sensor did not actuate within the specified time after the Tray 5 Feed Clutch was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	TRAY 5 LIFT UP MOTOR TEST Enter Diagnostic Mode - Output Test 7-22 to test the Tray 5 Lift Up Motor function. Does the Motor switch on when you start Output Test 7-22?	Go to step 4	Replace Tray 5 Lift Up Motor (RRP 5.10)
4	TRAY 5 FEED CLUTCH TEST Enter Diagnostic Mode - Output Test 8-2 to start the HCF Motor, and Output Test 8-16 to check the Tray 5 Feed Clutch function. Does the Tray 5 Feed Clutch actuate and the Feed Roll rotated when you start Output Test 8-16?	Go to step 5	Replace the Tray 5 Feed Clutch (RRP 5.13)
5	FEED, NUDGER, AND RETARD ROLL CHECK After performing step 4, carefully open tray 5. Was a sheet of paper fed out of Tray 5?	Go to step 6	Replace Tray 5 Feeder Assembly (RRP 5.21)
6	TRAY 4 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-8. 2. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 4 Take Away Sensor, and does the LCD display H when you remove the paper?	Go to step 7	Replace the Tray 4 Take Away Sensor (RRP 5.24)

Step	Actions and Questions	Yes	No
7	Replace the HCF PWB (RRP 5.9). Does the C5-0 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.7 Error Code C5-1

There is a paper jam between Paper Tray 5 and the Tray 3 Take Away Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 5, the Tray 3 Take Away Sensor did not actuate within the specified time after the Tray 4 Take Away Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	TRAY 3 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-7. 2. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 3 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 4	Replace the Tray 3 Take Away Sensor (RRP 5.18).
4	TRAY 4 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-8. 2. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 4 Take Away Sensor, and does the LCD display H when you remove the paper?	Go to step 5	Replace the Tray 4 Take Away Sensor (RRP 5.24)
5	TRAY 5 TAKE AWAY ROLL CHECK 1. Remove Tray 3 from the HCF. 2. Enter Diagnostic Mode - Output Test 8-2 to start the HCF Motor. Does the Tray Take Away Roll rotate when you run the HCF Motor?	Go to step 6	Troubleshoot the drive transmission from the HCF Motor to the Tray 5 Take Away Gear

Step	Actions and Questions	Yes	No
6	Replace the HCF PWB (RRP 5.9). Does the C5-1 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.8 Error Code C5-2

There is a paper jam between Tray 2 Take Away Sensor and Tray 3 Take Away Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 5, the Tray 2 Take Away Sensor signal did not actuate within the specified time after the Tray 3 Take Away Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 4	Replace the Tray 2 Take Away Sensor (RRP 3.16 in Vol 1)
4	TRAY 3 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-7. 2. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 3 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 5	Replace the Tray 3 Take Away Sensor (RRP 5.18).
5	TRAY 3 TAKE AWAY ROLL CHECK 1. Enter Diagnostic Mode - Output Test 8-2 to start the HCF Motor. 2. Open the HCF Left Cover. Does the Take Away Roll rotate when you run the HCF Motor?	Go to step 6	Troubleshoot the drive transmission from the HCF Motor to the Take Away Gear

Step	Actions and Questions	Yes	No
6	Replace the HCF PWB (RRP 5.9). Does the C5-2 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.9 Error Code C5-3

There is a paper jam between Paper Tray 5 and the Registration Sensor.

Logic Control on the MCU PWB sensed that when paper was fed from Tray 5, the Registration Sensor did not actuate within then specified after the Tray 2 Take Away Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Inspect the paper path for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	REGISTRATION SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-5. 2. Insert, then remove, a sheet of paper into the Registration Sensor. Does the Control Panel LCD display H when you insert the paper into the Registration Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Registration Sensor (RRP 4.6 in Vol 1)
4	TRAY 2 TAKE AWAY ROLL CHECK 1. Enter Diagnostic Mode - Output Test 4-1 to start the Main Motor. 2. Open the Tray 2 Transport Cover. Does the Take Away rotate when you run the Main Motor?	Go to step 5	Replace Tray 2 Feeder (RRP 2.13 in Vol 1)
5	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the window display H when you remove the paper?	Go to step 6	Replace the Tray 2 Take Away Sensor (RRP 3.16 in Vol 1)

Step	Actions and Questions	Yes	No
6	Replace the HCF PWB (RRP 5.9). Does the C5-3 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.10 Error Code C8-3

There is a problem with the Tray 3 Take Away Sensor.

Logic Control on the MCU PWB sensed the Tray 3 Take Away Sensor was on while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	TRAY 3 TAKE AWAY SENSOR INSPECTION Remove Tray 3 and inspect the Tray 3 Take Away Sensor for paper scraps that may be actuating the sensor. Is the Sensor free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRAY 3 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-7. 2. Insert, then remove, a sheet of paper into the Tray 3 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 3 Take Away, and does the LCD display H when you remove the paper?	Go to step 3	Replace the Tray 3 Take Away Sensor (RRP 5.18)
3	Replace the HCF PWB (RRP 5.9). Does the C8-3 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.11 Error Code C8-4

There is problem with the Tray 4 Take Away Sensor.

Logic Control on the MCU PWB sensed the Tray 4 Take Away Sensor was on while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	TRAY 4 TAKE AWAY SENSOR INSPECTION Open the HCF Left Cover and inspect the Tray 4 Take Away Sensor for paper scraps that may be actuating the sensor. Is the Sensor free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRAY 4 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-8. 2. Insert, then remove, a sheet of paper into the Tray 4 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 4 Take Away Sensor, and does the LCD display H when you remove the paper?	Go to step 3	Replace the Tray 4 Take Away Sensor (RRP 5.24)
3	Replace the HCF PWB (RRP 5.9). Does the C8-4 error code still appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.12 Error Code E6-1

The Cabinet Cover is open.

Logic control on the MCU PWB sensed that the HCF Left Cover is open.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	LEFT COVER CHECK Open and close the Left Cover. The E6-1 is cleared?	Problem solved	Go to step 2
2	LEFT COVER INTERLOCK SWITCH INSPECTION Inspect the Left Cover Interlock Switch for damage that may have locked the Switch in the off position. Is the switch undamaged?	Go to step 3	Replace the Left Cover Interlock Switch (RRP 5.17)
3	CABINET INTERLOCK ACTUATOR INSPECTION Inspect the Left Cover Interlock Actuator tab for damage that may prevent the Cover from actuating the Interlock when the Cover is closed. Is the Interlock Actuator tab undamaged?	Go to step 4	Replace the Left Cover Assembly (RRP 5.4)
4	LEFT COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input n+1 Test 13-1. 2. Actuate and deactuate the Left Cover Interlock Switch. Does the LCD increment the display number by 1 each time you actuate and deactuate the Left Cover Interlock Switch?	Go to step 5	Replace the Left Cover Interlock Switch (RRP 5.17)
5	Replace the HCF PWB (RRP 5.9). Does the E6-1 error code appear?	Go to step 6	Problem solved
6	Replace the MCU PWB (RRP 5.99). Does the E6-1 error code appear?	Refer to the wiring diagrams Section 14, and check for a broken wire or loose connection between components	Problem solved

2.13 Error Codes H1-3

There is a problem with Tray 3.

Logic Control on the MCU PWB sensed that the Tray 3 Paper Level Sensor did not actuate within the specified after the Tray 3 Lift Motor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	TRAY 3 LIFT UP MOTOR TEST 1. Remove the HCF Rear Cover (RRP 10.2). 2. Load paper into Tray 3 and slide Tray 3 into Feeder 3. 3. Enter Diagnostic Mode - 7-20 to check the Tray 3 Lift Up Motor. Does the Tray 3 Lift Up Motor run when you start Diagnostic Mode 7-20?	Go to step 2	Replace Tray 3 Lift Up Motor (RRP 5.10)
2	TRAY 3 CHECK Slowly side Tray 3 out of Feeder 3. Can you hear the Tray 3 bottom plate drop as you slide the Tray out of the Feeder?	Go to step 2	Replace Tray 3
3	TRAY 3 NO PAPER SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 7-9 to check the Tray 3 No Paper Sensor. 2. Remove Tray 3 from the printer and push the Actuator up and then release it. Does the Control Panel LCD display L when you push up on the Actuator, and does the LCD display H when you release the Actuator?	Go to step 4	Replace the Tray 3 No Paper Sensor (RRP 5.15)
5	Replace the HCF PWB (RRP 5.9). Does the H1-3 error code appear?	Go to step 6	Problem solved
6	Replace the MCU PWB (RRP 9.7). Does the H1-3 error code appear?	Refer to the wiring diagrams Section 14, and check for a broken wire or loose connection between components	Problem solved

2.14 Error Codes H1-4

There is a problem with Tray 4.

Logic Control on the MCU PWB sensed that the Tray 4 Paper Level Sensor did not actuate within the specified after the Tray 4 Lift Motor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	TRAY 4 LIFT UP MOTOR TEST 1. Remove Tray 3 from the HCF so you can observe Tray 4. 2. Enter Diagnostic Mode - 7-21 to check the Tray 4 Lift Up Motor. Does the Tray 4 Lift Up Motor run when you start Diagnostic Mode 7-21?	Go to step 2	Replace Tray 4 Lift Up Motor (RRP 5.10)
2	TRAY 4 CHECK Slowly side Tray 4 out of Feeder 4. Does the Tray 4 bottom plate drop as you slide the Tray out of the Feeder?	Go to step 2	Replace Tray 4 (RRP 4.22)
3	TRAY 4 NO PAPER SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 7-10 to check the Tray 4 No Paper Sensor. 2. Remove Tray 4 from the printer and push the Actuator up and then release it. Does the Control Panel LCD display L when you push up on the Actuator, and does the LCD display H when you release the Actuator?	Go to step 4	Replace the Tray 4 No Paper Sensor (RRP 5.15)
5	Replace the HCF PWB (RRP 5.9). Does the H1-4 error code appear?	Go to step 6	Problem solved
6	Replace the MCU PWB (RRP 9.7). Does the H1-4 error code appear?	Refer to the wiring diagrams Section 14, and check for a broken wire or loose connection between components	Problem solved

2.15 Error Code H1-5

There is a problem with Tray 5.

Logic Control on the MCU PWB sensed that the Tray 5 Paper Level Sensor did not actuate within the specified after the Tray 5 Lift Motor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	TRAY 5 LIFT UP MOTOR TEST 1. Remove Tray 3 from the HCF so you can observe Tray 5. 2. Enter Diagnostic Mode - 7-22 to check the Tray 5 Lift Up Motor. Does the Tray 5 Lift Up Motor run and does the Tray 5 bottom plate raise when you start Diagnostic Mode 7-22?	Go to step 2	Replace Tray 5 Lift Up Motor (RRP 5.7)
2	TRAY 5 CHECK Slowly slide Tray 5 out of Feeder 5. Does the Tray 5 bottom plate drop as you slide the Tray out of the Feeder?	Go to step 2	Replace Tray 5 (RRP 5.29)
3	TRAY 5 NO PAPER SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 7-11 to check the Tray 5 No Paper Sensor. 2. Remove Tray 5 from the printer and push the Actuator up and then release it. Does the Control Panel LCD display L when you push up on the Actuator, and does the LCD display H when you release the Actuator?	Go to step 4	Replace the Tray 5 No Paper Sensor (RRP 5.15)
5	Replace the HCF PWB (RRP 5.9). Does the H1-5 error code appear?	Go to step 6	Problem solved
6	Replace the MCU PWB (RRP 9.7). Does the H1-5 error code appear?	Refer to the wiring diagrams Section 14, and check for a broken wire or loose connection between components	Problem solved

Section 3 - Inoperative High Capacity Feeder

When you switch on the printer the Lift Motors do not raise the HCF trays into place, none of the HCF feeders respond to feed commands from the printer, and the problem is not identified by a displayed Error Code.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. • Wiring and connectors linking the components		
1	HCF OPERATION CHECK Generate a printer test print from Tray 3, Tray 4, and Tray 5. Does the printer generate a test print from Tray 3, Tray 4, and Tray 5?	Go to step 2	Go to step 2
2	PRINTER OPERATION CHECK Generate a printer test print fed from Tray 1 and Tray 2. Does the printer generate a test print fed from both Tray 1 and Tray 2?	Go to step 3	Go to FIP 4.1 in the Base Engine Manual and troubleshoot an inoperative printer.
3	HCF INTERFACE CABLE INSPECTION Check the HCF to printer interface cable. Is the cable firmly connected to the P/J at the rear of the printer?	Go to step 4	Reconnect the interface cable
4	APPLICATION SOFTWARE 1. If possible, run a Tray 3, Tray 4, and Tray 5 print job from a different application. Does the printer process the print request?	Reload application software	Go to step 5
5	DRIVER SOFTWARE RELOAD 1. Reload the printer driver software. 2. Run a Tray 3, Tray 4, and Tray 5 print job from the host computer. Does the printer process the print request?	Problem solved	Go to step 6

3 Inoperative High Capacity Feeder continued

Step	Actions and Questions	Yes	No
6	HCF +5VDC VOLTAGE CHECK 1. Remove the HCF Rear Cover (RRP 10.2). 2. Measure the voltage between J480-1 and FG (frame ground), between J480-2 and FG, and between J480-5 and FG on the HCF PWB. Is there +5VDC between J480-1 and FG, between J480-2 and FG, and between J480-5 and FG?	Go to step 7	Go to the Base Engine Manual and trouble-shoot for a loss of +5VDC from the MCU PWB
7	HCF +24VDC VOLTAGE CHECK Measure the voltage between J480-7 and FG (frame ground) and between J480-8 and FG on the HCF PWB. Is there +24VDC between J480-7 and FG and between J480-8 and FG?	Replace the HCF PWB (RRP 5.9)	Go to the Base Engine Manual and trouble-shoot for a loss of +24VDC from the MCU PWB

Section 4 - Running HCF Diagnostics

Diagnostic Mode Routines and Subroutines

While in Diagnostic Mode you have access to a variety of test functions:

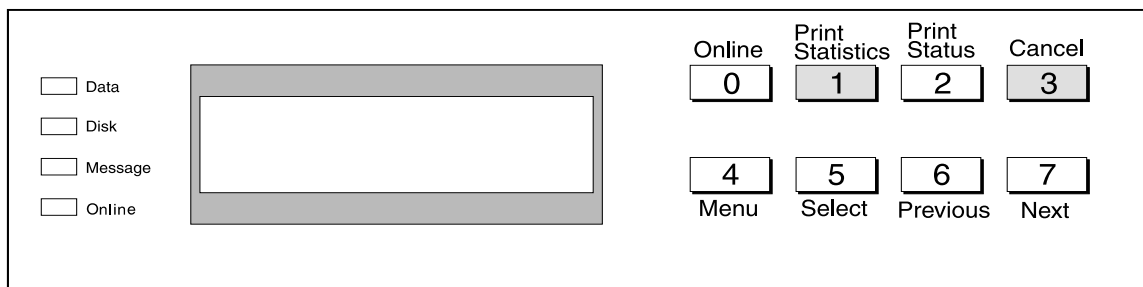
- **Input Test (H/L)**
Check the signal level (on/off) coming from a specific sensor.
- **Output Test**
Switch on and off a specific component, such as a motor or solenoid.
- **Test Print**
Generate a built-in Test Pattern.

Before running Diagnostics

Connect the printer Control Panel to the MCU PWB (Refer to *Section 7-Diagnostic Mode and the Control Panel* of the Base Engine Technical Manual) on how to connect and use the Control Panel to run Diagnostics).

To enter Diagnostic Mode

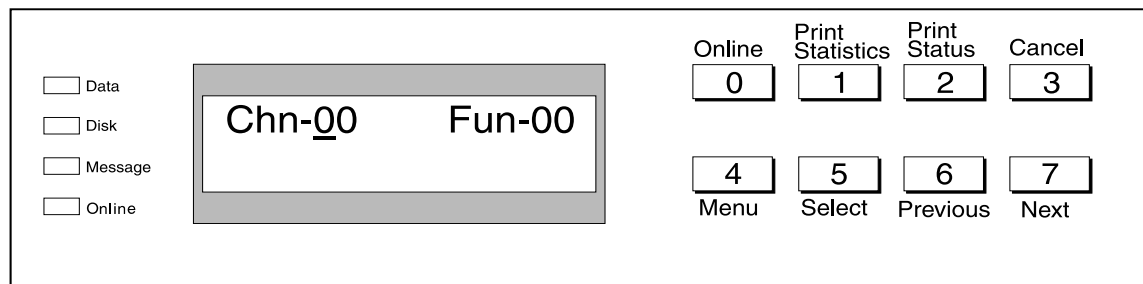
1. Press and hold [1] and [3] while you switch on printer main power.



SER875X

2. When the Control Panel LCD displays *Chn-00 Fun-00*, as shown below, release [1] and [3].

The printer is now in Diagnostic Mode.



SER876X

Running an Output Test

Use this Diagnostic routine to actuate High Capacity Feeder components such as motors and clutches. You can run multiple output tests simultaneously.

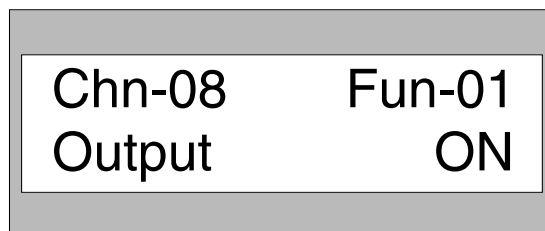
1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select an HCF related Output Test from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Output test.

The LCD displays the *Chn* - *Fun* number of the test, *Output*, and *ON* to indicate the test has started.

The output component under test should click, switch on, or start running.



SER877X

7. Press Function Key [0] to stop the Output Test.
8. Press [1] to restart the test if necessary.

Output Tests for the High Capacity Feeder

Chain (Routine)	Function (Subroutine)	Switches on the...	Comments
7	20	Tray 3 Lift Motor	If Tray 3 Level Sensor is down, the Motor runs for 2 seconds, then switches off. If the Sensor is up, the Motor does not run. Tray 3 must be installed in the HCF for 7-20 to run.
7	21	Tray 4 Lift Motor	If Tray 4 Level Sensor is down, the Motor runs for 2 seconds, then switches off. If the Sensor is up, the Motor does not run. Tray 4 must be installed in the HCF for 7-21 to run.
7	22	Tray 5 Lift Motor	If Tray 5 Level Sensor is down, the Motor runs for 2 seconds, then switches off. If the Sensor is up, the Motor does not run.
8	2	HCF Feed Motor	
8	14	Tray 3 Feed Clutch	Stop the test after 5 seconds
8	15	Tray 4 Feed Clutch	Stop the test after 5 seconds
8	16	Tray 5 Feed Clutch	Stop the test after 5 seconds

Running an Input Test (H/L)

Use this Diagnostic routine to check the digital signal level (High or Low) from an HCF sensor. This test tells you whether or not a sensor is working correctly and is sending a signal to the MCU PWB.

1. Enter Diagnostic Mode

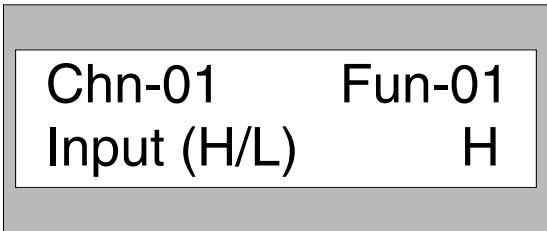
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select an HCF related Input Test (H/L) from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Input test.

The LCD displays the *Chn* - *Fun* number of the test, *Input (H/L)*, and *H* or *L* to indicate the status of the sensor at that moment.

7. Watch the status field as you manually actuate the sensor.

The status field should change from either H to L or L to H as you manually actuate and deactuate the sensor.



Chn-01 Fun-01
Input (H/L) H

SER878X

8. When you are finished with this test, switch off printer main power to exit Diagnostic Mode.

Input Test (H/L) table

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
1	10	HCF Left Cover Interlock Switch	H = Cover open L = Cover closed
7	9	Tray 3 No Paper Sensor	H = No Paper sensed L = Paper sensed
7	10	Tray 4 No Paper Sensor	H = No Paper sensed L = Paper sensed
7	11	Tray 5 No Paper Sensor	H = No Paper sensed L = Paper sensed
7	15	Tray 3 Level Sensor	H = Tray out & Feeder not in feed posi- tion L = Tray in & Feeder in feed position

Input Test (H/L) table continued

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
7	16	Tray 4 (HCF4) Level Sensor	H = Tray out & Feeder not in feed position L = Tray in & Feeder in feed position
7	17	Tray 5 (HCF5) Level Sensor	H = Tray out & Feeder not in feed position L = Tray in & Feeder in feed position
8	7	Tray 2 Take Away Sensor	H = Paper sensed L = No paper sensed
8	8	Tray 3 Take Away Sensor	H = Paper sensed L = No paper sensed
8	9	Tray 4 Take Away Sensor	H = Paper sensed L = No paper sensed

Running an Input Test (A/D)

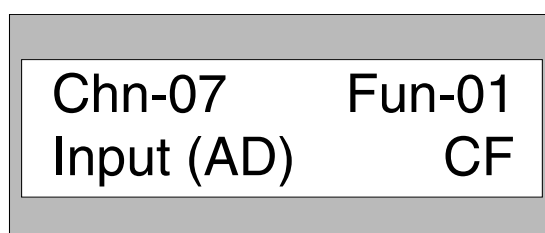
Use this Diagnostic routine to check the analog signal level (0 ~ *n*) or digital signal level (a hexadecimal number) coming from a sensor. This test tells you whether or not a switch or sensor is working correctly and sending the correct voltage signal level to the MCU PWB. Use the tables provided on the following pages to interpret the displayed values.

1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select an Input Test (A/D) from the tables below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Input test.

The LCD displays the *Chn* - *Fun* number of the test, *Input (A/D)*, and a hexadecimal number that corresponds to the level send from the switch or sensor.



SER879X

7. When you are finished with this test, switch off printer main power to exit Diagnostic Mode.

Input Test (A/D) table for Paper Size Sensors

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
7	3	Tray 3 Paper Size Sensor	Hex number. See table
7	4	Tray 4 Size Sensor	Hex number. See table
7	5	Tray 5 Size Sensor	Hex number. See table

Hex numbers for Tray 3

A/D number displayed Typical number / possible range of numbers	Meaning of A/D number
FF / (F8 ~ FF)	No feeder detected
EE / (E7 ~ F7)	No tray detected in feeder
DE / (D7 ~ E6)	System problem with paper size. Reset size
CE / (C7 ~ D6)	8.5" x 11" LEF
BE / (B7 ~ C6)	Either A4 LEF or A5 LEF
AF / (A8 ~ B6)	Either B5 LEF or 7.5" x 10.5" LEF
9F / (96 ~ A7)	System problem with paper size. Reset size
90 / (89 ~ 95)	8.5" x 11" SEF
80 / (7A ~ 88)	A4 SEF
72 / (6B ~ 79)	11" x 17" SEF
62 / (5B ~ 6A)	A3 SEF
53 / (4C ~ 5A)	5.5" x 8.5" LEF
44 / (3D ~ 4B)	A5 LEF
35 / (2E ~ 3C)	8.5" x 13" SEF
26 / (1F ~ 2D)	System problem with paper size. Reset size
17 / 10 ~ 1E)	Either 8.5" x 14" SEF or B4 SEF
08 / (00 ~ 0F)	B5 SEF

Hex numbers for Trays 4 and 5

A/D number displayed Typical number / possible range of numbers	Meaning of A/D number
FF / (F8 ~ FF)	No feeder detected
EE / (E7 ~ F7)	No tray detected in feeder
CE / (C7 ~ D6)	Either B5 LEF or 7.25" x 10.5 LEF
72 / (6B ~ 79)	8.5" x 11" LEF
53 / (4C ~ 5A)	A4 LEF
All other numbers	System problem with paper size. Reinitialize the HCF

Running Test Print

Use this diagnostic routine to print a specific type of HCF test pattern. The test patterns are built into the printer circuitry and are an excellent tool for isolating and diagnosing HCF paper feed problems.

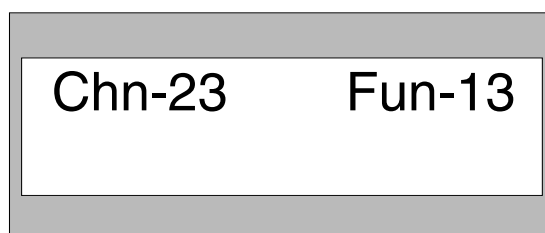
To generate a Test Print

1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select a specific Test Print pattern from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to generate a Test Print.

The printer generates test prints until you stop the routine.



SER881X

To stop Test Print

Press Function Key [0].

Test Print Table for the HCF

Chain (Routine)	Function (Subroutine)	Tray, Mode, and Test Pattern Type
23	30	Tray 3 Simplex Mode: Blank sheet of paper
23	31	Tray 3 Simplex Mode: Solid black up to the white margins
23	33	Tray 3 Simplex Mode: 4 dot grid pattern
23	40	Tray 4 Simplex Mode: Blank sheet of paper
23	41	Tray 4 Simplex Mode: Solid black up to the white margins
23	43	Tray 4 Simplex Mode: 4 dot grid pattern
23	50	Tray 5 Simplex Mode: Blank sheet of paper
23	51	Tray 5 Simplex Mode: Solid black up to the white margins
23	53	Tray 5 Simplex Mode: 4 dot grid pattern

Section 5 - Removal and Replacement Procedures (RRP)

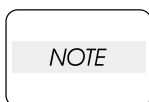
This section contains the removal and replacement procedures for major parts within the printer High Capacity Feeder (HCF).

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power.
2. Disconnect the AC power cord from the wall outlet.
3. Remove the EP Cartridge and cover it with a dark cloth or place it in a sealed container to protect it from exposure to light.
4. Wear an electrostatic discharge wrist strap to protect sensitive printer parts from damage.

Work Notes



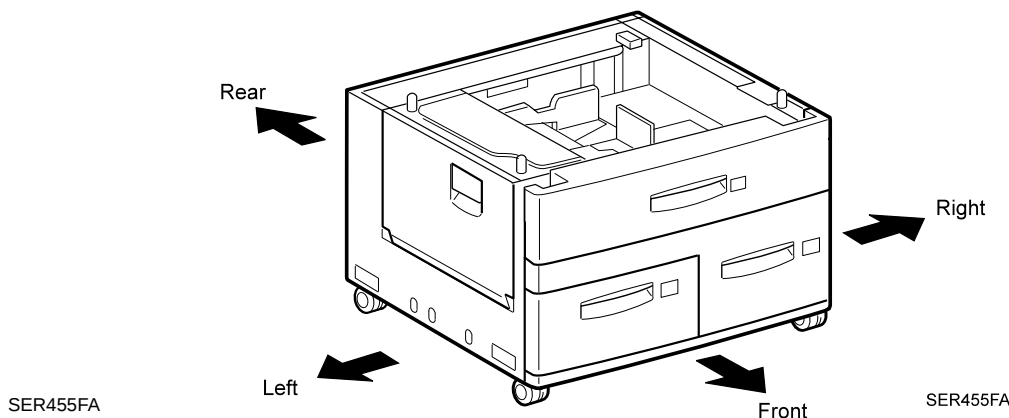
Names of parts that appear in the RRP's may not be exactly the same as the names appear in the parts list. For example, an RRP for the MSI Tray Assembly may appear on the parts list as Tray Assembly MSI.



Always reinstall the correct type and size screws. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install a part.

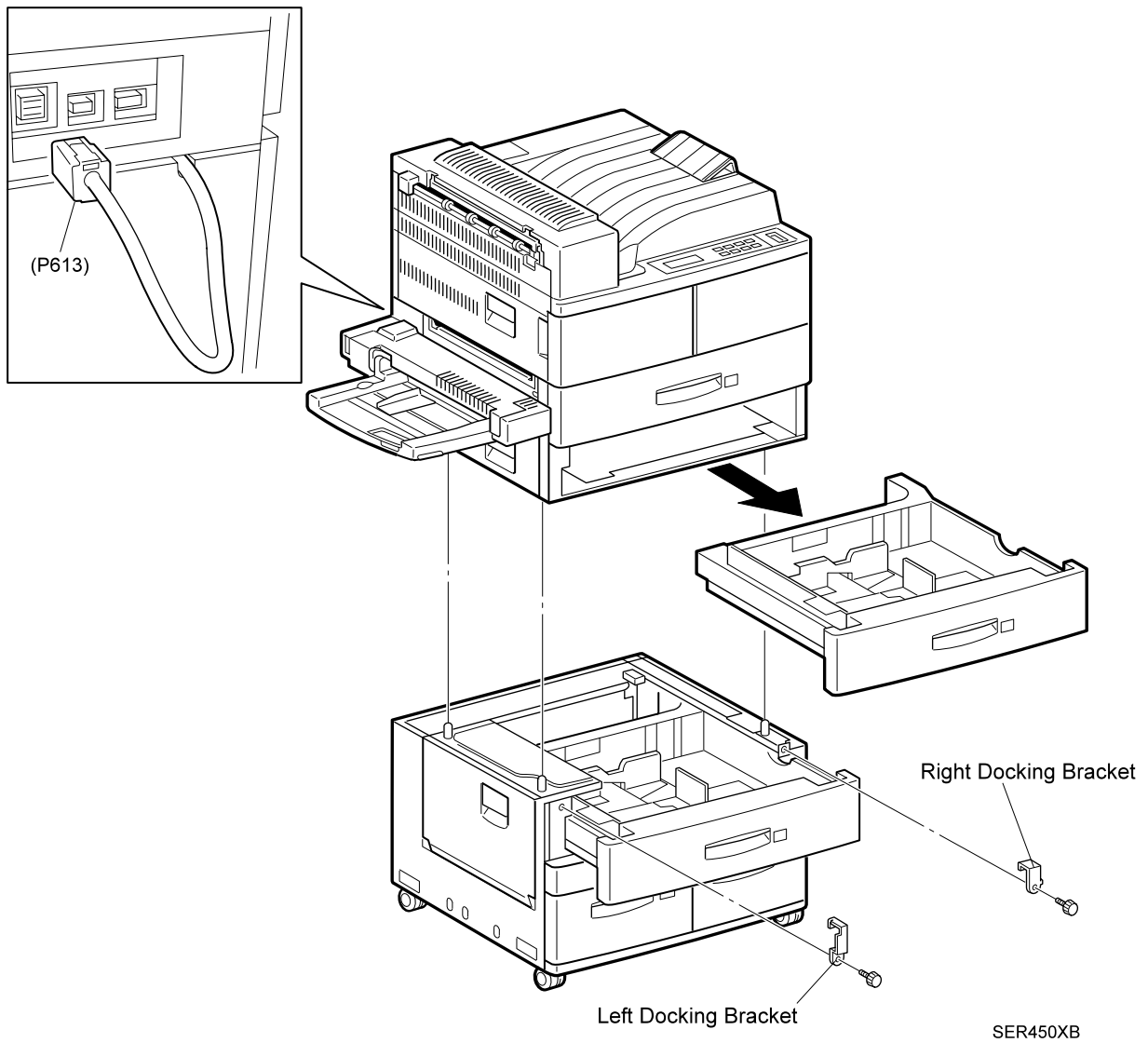
Notations in the RRP text

- Locations, such as R or right, given in the RRP's assume you are facing the printer console panel.



- The notation “(See RRP X.Y)” in a RRP step, directs you to another RRP to see how to perform a related or pre-requisite procedure.
- The notation “(Figure X.Y)” points to the illustration that corresponds to the RRP you are performing.
- The notation “(PLX)” indicates that this component is listed in the PLX parts list.
- Arrows in an illustration show direction of movement when removing a component.
- Slashes in a part name indicate that numerous components share the same heading and function. For example, "Gears In/Feed/Out" refers to Gear In, Gear Feed, and Gear Out.

RRP 5.1 High Capacity Feeder



RRP 5.1 High Capacity Feeder

Removal

1. Lock the two front HCF casters.
2. Disconnect the HCF interface cable from P613 located at the rear of the base printer.
3. Remove Tray 2 from the base printer.
4. Open Tray 3 and remove the two screws securing the Left and Right Docking Brackets to the HCF frame, and remove the Brackets.



The following step requires the printer to be lifted. The printer is very heavy and requires two people to lift it. Do not attempt to lift the printer by yourself.

5. Lift the printer off of the HCF
6. Set the printer on a level and stable surface.

Replacement

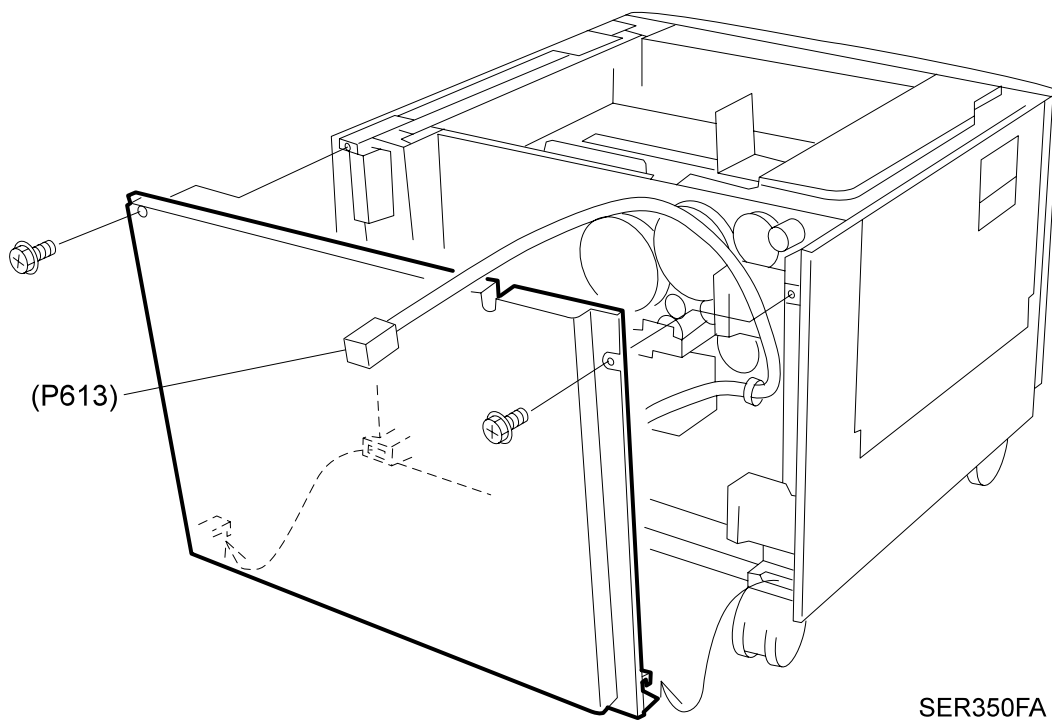
1. Position the HCF and lock the two front casters.
2. Remove Tray 2 from the base printer.



The following step requires the printer to be lifted. The printer is very heavy and requires two people to lift it. Do not attempt to lift the printer by yourself.

3. Lift the printer and position it a few inches above the base printer.
4. Align the three positioning holes in the bottom of the base printer with the three metal position rods in the top of the HCF.
5. Slowly lower the printer onto the HCF.
6. Open Tray 3.
7. Reinstall the Left Docking Bracket between the HCF and the printer (as shown in the figure).
8. Use one screw to secure the Left Docking Bracket.
9. Reinstall the Right Docking Bracket between the HCF and the printer (as shown in the figure).
10. Use one screw to secure the Right Docking Bracket.
11. Close Tray 3.
12. Reinstall Tray 2.
13. Reconnect the HCF interface cable to P613 located at the rear of the base printer.

RRP 5.2 HCF Rear Cover (PL12.1)



SER350FA

RRP 5.2 HCF Rear Cover (PL12.1)

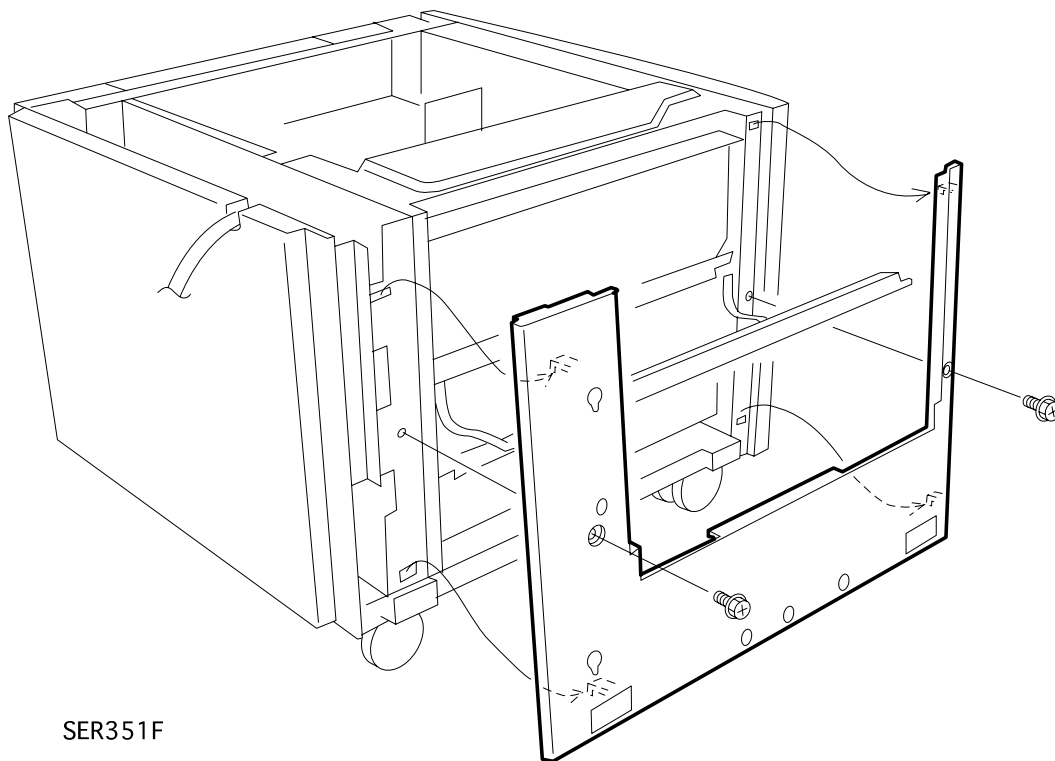
Removal

1. Remove the two screws securing the Rear Cover to the HCF frame.
2. Pull up on the Rear cover and remove it from the frame.

Replacement

1. Slip the two tabs that are located at the bottom of the Rear Cover into the openings at the bottom of the HCF frame.
2. Slide the edges the Rear Cover into the groves in the Left and Right Covers.
3. Use two screws to secure the Rear Cover to the HCF frame.

RRP 5.3 HCF Left Cover (PL12.1)



SER351F

SER351F

RRP 5.3 HCF Left Cover (PL12.1)

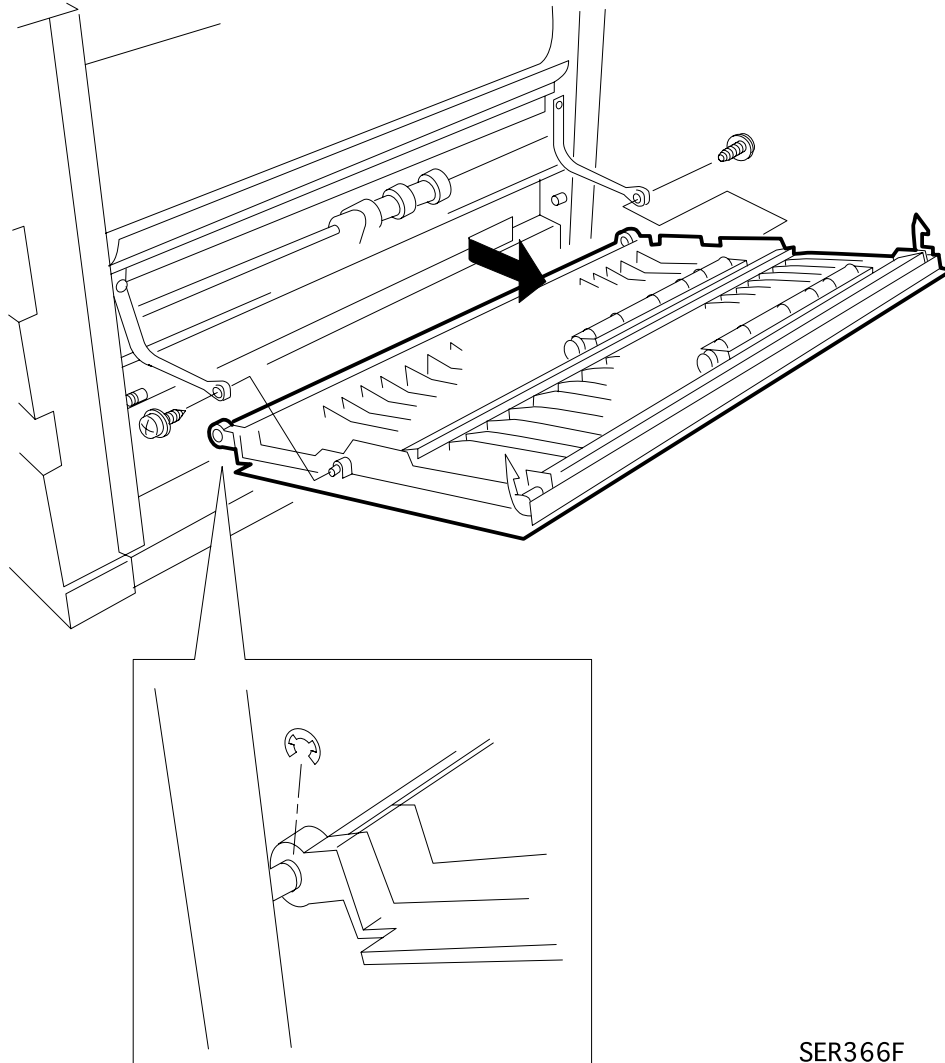
Removal

1. Slide Trays 3 and 4 a few inches out of the HCF.
2. Open the Left Cover door.
3. Remove two screws securing the Left Cover to the HCF frame.
4. Lift up the Left Cover to free the four latching tabs from the HCF frame, and remove the Cover.

Replacement

1. Slide Trays 3, 4, and 5 a few inches out of the HCF.
2. Open the Left Cover door.
3. Align the Left Cover so the four latches tabs on the back of the Cover are opposite the four openings in the HCF Frame.
4. Press the Cover into the frame, then push down on the Cover to lock the tabs in place.
5. Use two screws to secure the Left Cover to the HCF frame.

RRP 5.4 Left Cover Assembly (PL12.11)



SER366F

SER366F

RRP 5.4 Left Cover Assembly (PL12.11)

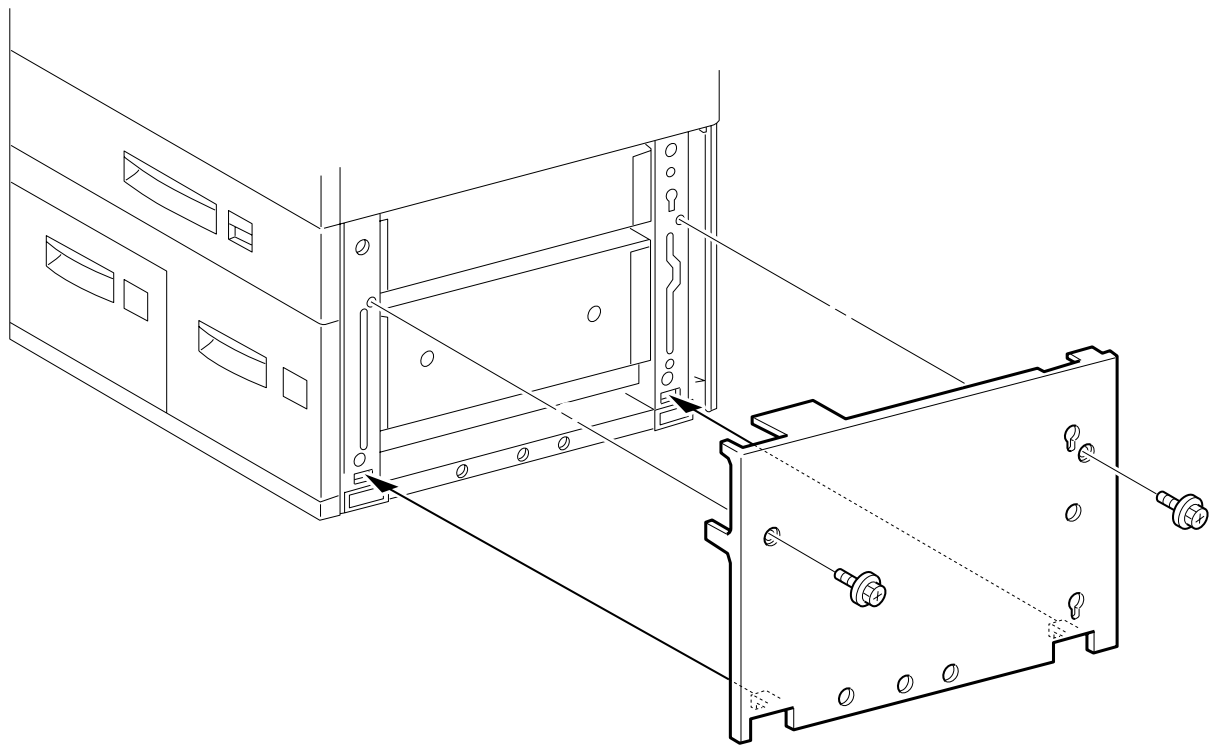
Removal

1. Remove the HCF Left Cover (RRP 5.3).
2. Open the Left Cover Assembly.
3. Remove the two screws securing the Left Cover Assembly to the Left Cover.
4. Remove the ends of the two Straps from the Left Cover Assembly.
5. Remove the E ring from the rear of the Cover Assembly shaft.
6. Slide the Left Cover Assembly to the rear until the front of the Assembly clears the front shaft, and remove the Assembly.

Replacement

1. Slide the front of the Assembly onto the front shaft.
2. Slide the rear of the Assembly onto the rear shaft.
3. Use one E ring to secure the rear of the Assembly to the rear shaft.
4. Reinstall the ends of the two Straps to the Left Cover Assembly.
5. Use two screws to secure the Straps to the Assembly.
6. Reinstall the HCF Left Cover (RRP 5.3).

RRP 5.5 Right Cover (PL12.1)



SER224F

SER224F

RRP 5.5 Right Cover (PL12.1)

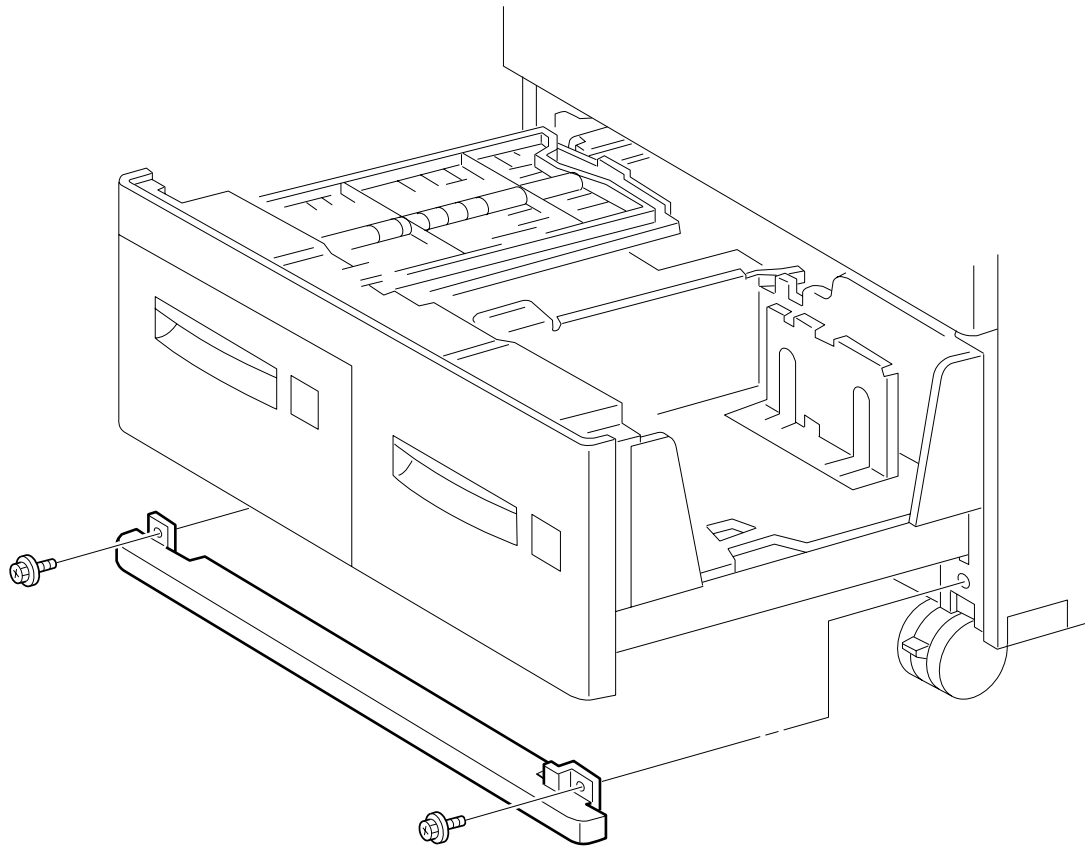
Removal

1. Remove the two screws securing the Right Cover to the HCF frame.
2. Lift up the Right Cover to free the two latching tabs from the HCF frame, and remove the Cover.

Replacement

1. Hook the two latching tabs that are located at the bottom edge of the Right Cover into the openings at the bottom of the HCF frame.
2. Press the Right Cover against the frame.
3. Use two screws to secure the Right Cover to the HCF.

RRP 5.6 Front Cover BTM (PL12.1)



SER223F

SER223F

RRP 5.6 Front Cover BTM (PL12.1)

Removal

1. Slide Trays 4 and 5 out of the HCF far enough so you can access the two screws securing the Front Cover BTM to the HCF frame.
2. Remove the two screws securing the Front Cover BTM to the HCF frame, and remove the Cover.

Replacement

1. Slide Trays 4 and 5 out of the HCF far enough so you can access the two screw holes located on both ends of the Front Cover BTM.
2. Reinstall the Front Cover BTM onto the HCF frame.
3. Use two screws to secure the Cover to the frame.
4. Close Trays 4 and 5.

RRP 5.7 HCF Feed Motor (PL12.2)

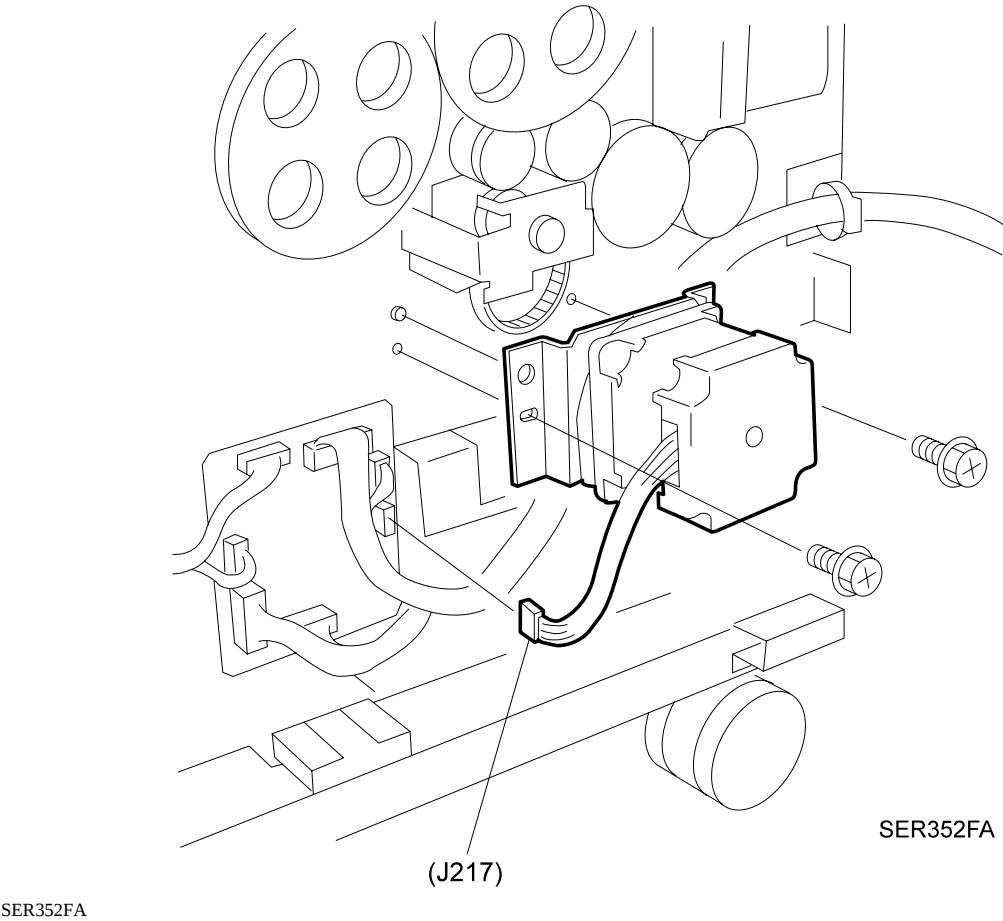


Figure 1

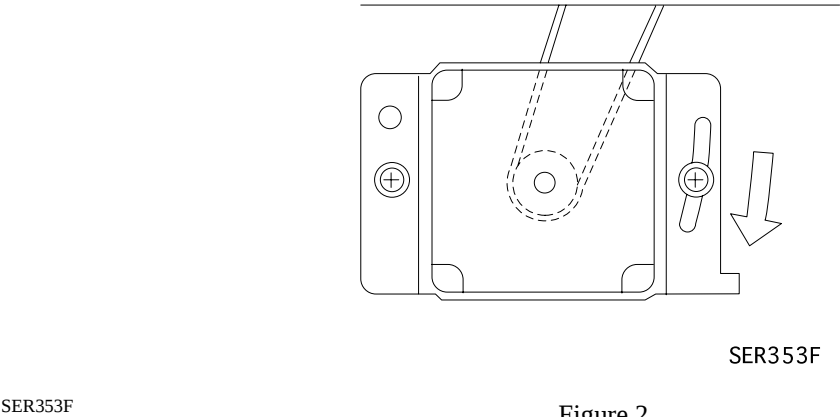


Figure 2

RRP 5.7 HCF Feed Motor (PL12.2)

Removal

1. Remove the HCF Rear Cover (RRP 5.2).
2. Disconnect P/J217 from the HCF PWB.
3. Hold on to the rear of the Feed Motor while you remove the two screws securing the Motor Bracket to the frame (Figure 1).
4. Slide the Feed Motor out of the HCF Drive Belt and remove the Motor from the frame.

Replacement

1. Position the Feed Motor so the wire harness is on the left side of the Motor (Figure 1).
2. Reinstall the Motor and slip the Drive Belt over the Feed Motor Gear.
3. Align the Motor Bracket with the frame positioning tabs.
4. Use two screws to secure the Motor Bracket to the frame, but do not tighten fully.
5. Tighten the Drive Belt tension by pushing the Motor Bracket in the direction of the arrow (see illustration) and fully tightening the two screws securing the Bracket to the frame (Figure 2).
6. Reconnect P/J217 to the HCF PWB.
7. Reinstall the Rear Cover (RRP 5.2).

RRP 5.8 HCF Drive Belt (PL12.2)

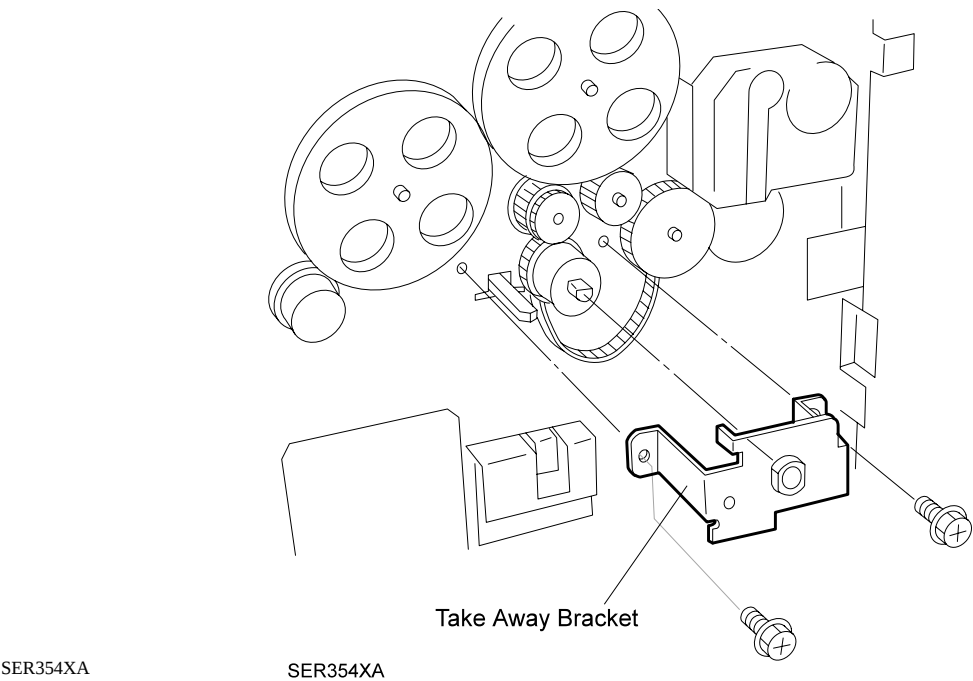


Figure 1

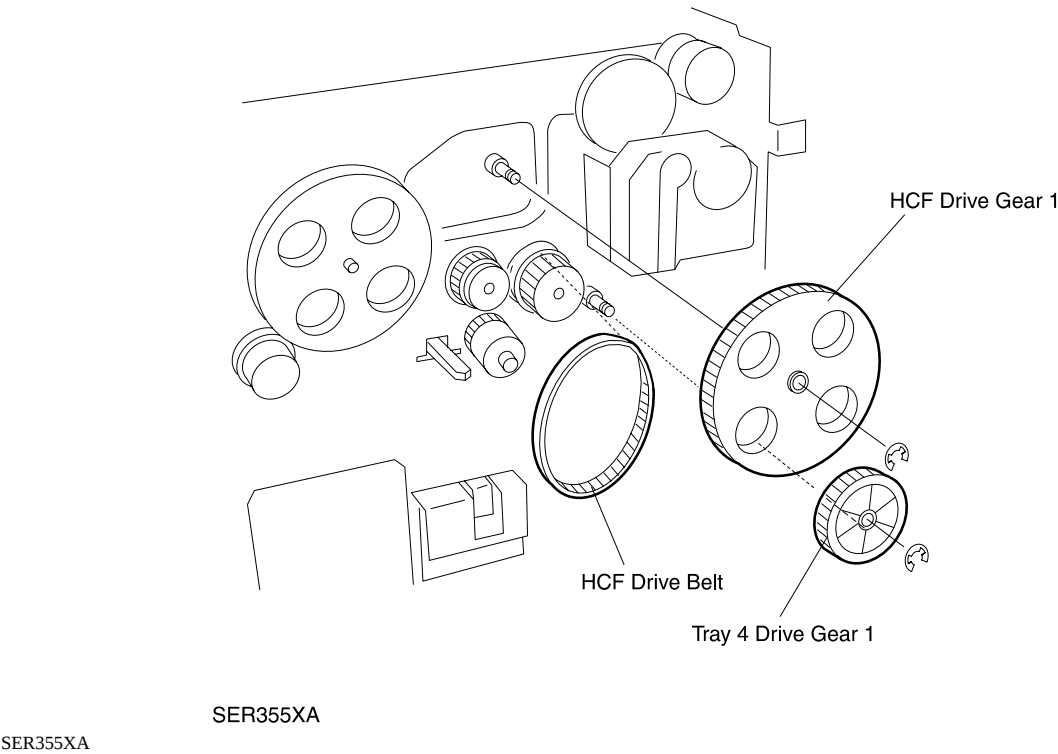


Figure 2

RRP 5.8 HCF Drive Belt (PL12.2)

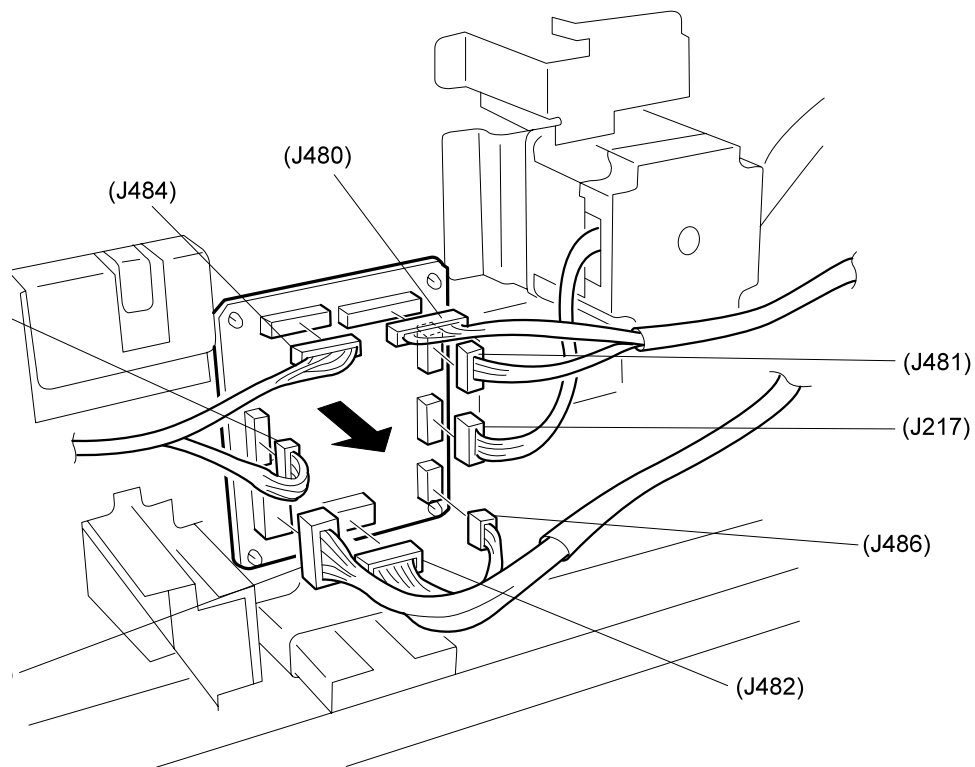
Removal

1. Remove the HCF Rear Cover (RRP 5.2).
2. Remove the HCF Feed Motor (RRP 5.7).
3. Remove two screws securing the Take Away Bracket to the frame and remove the Bracket (Figure 1).
4. Remove the E-ring securing HCF Drive Gear 1 and the E-ring securing Tray 4 Drive Gear 1 and slide both Gears off of the shafts (Figure 2).
5. Remove the Drive Belt from the HCF Drive Pulley.

Replacement

1. Reinstall the Drive Belt over the HCF Drive Pulley.
2. Reinstall the HCF Drive Gear 1 and the Tray 4 Drive Gear 1 onto the respective shafts, and use one E-ring to secure each gear (Figure 2).
3. Reinstall the Take Away Bracket to the frame, making sure the bearing is still in place on the end of the Feed Clutch, and use two screws to secure the Bracket (Figure 1).
4. Reinstall the HCF Feed Motor (RRP 5.7).
5. Reinstall the Rear Cover (RRP 5.2).

RRP 5.9 HCF PWB (PL12.2)



SER356FB

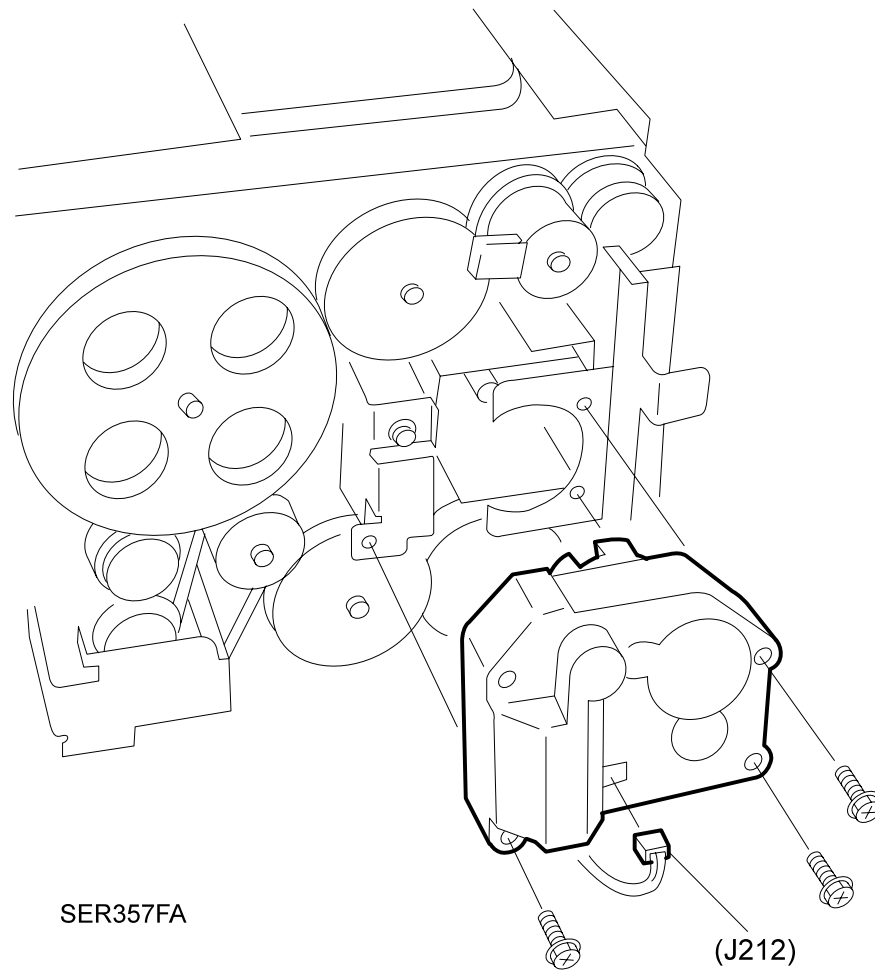
Removal

1. Remove the HCF Rear Cover (RRP 5.2).
2. Disconnect all eight P/Js from the HCF PWB.
3. Press in and release the latches on the four plastic standoffs securing the PWB to the HCF frame, and remove the PWB.

Replacement

1. Position the HCF PWB so P/Js 484 and 480 are at the top.
2. Reinstall the HCF PWB onto the HCF frame, and align the four holes in the PWB with the four standoffs on the frame.
3. Press the PWB onto the four standoffs until they latch into place.
4. Reconnect the eight P/Js to the HCF PWB.
5. Reinstall the HCF Rear Cover (RRP 5.2).

RRP 5.10 Lift Up Motor (PL12.3)



SER357FA

RRP 5.10 Lift Up Motor (PL12.3)

Use this procedure for removal of Tray 3, Tray 4, and Tray 5 Lift Up Motors.

Removal

1. Remove the Paper Tray (3 ~ 5) from the Paper Feeder (3 ~ 5).
2. Remove the HCF Rear Cover (RRP 5.2).
3. Disconnect the P/J that is attached to the Lift Up Motor.
4. Remove the three long screws securing the Motor to the HCF frame.
5. Slide the Motor out to remove it.

Replacement

1. Remove the Paper Tray (3 ~ 5) from the Paper Feeder (3 ~ 5).
2. Remove the HCF Rear Cover (RRP 5.2).
3. Reinstall the Lift Up Motor onto the printer frame.

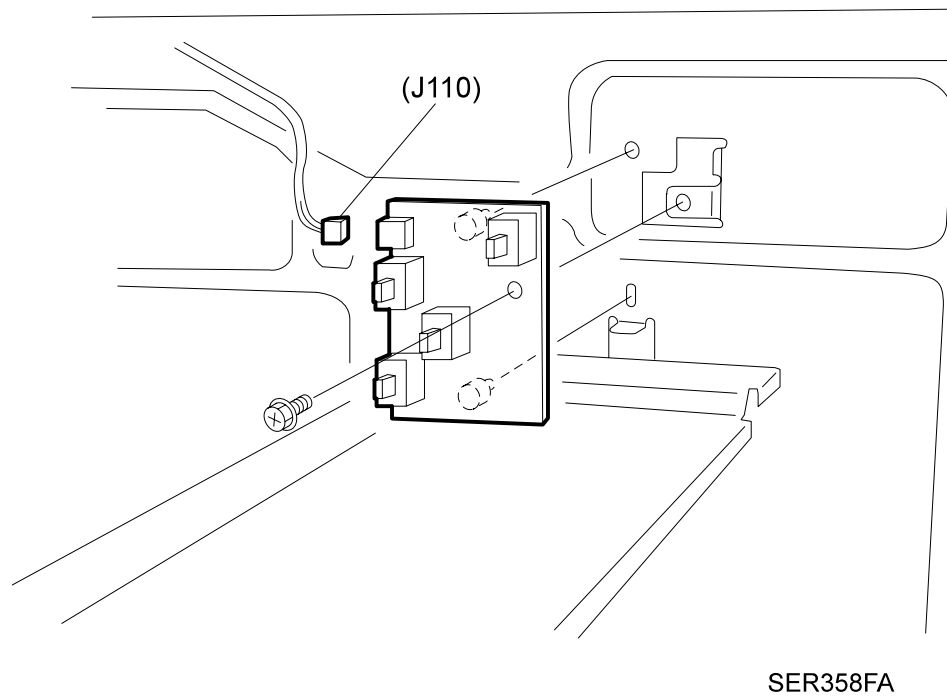
Be careful not to trap any wires between the Motor and the frame.

4. Use three long screws to secure the Motor to the frame.

Use one screw on the lower left and two screws on the right side of the Motor.

5. Reconnect the P/J to the rear of the Motor.
6. Reinstall the HCF Rear Cover (RRP 5.2).
7. Reinstall the Paper Tray.

RRP 5.11 Tray 3 Paper Size Sensor PWB (PL12.3)



SER358FA

RRP 5.11 Tray 3 Paper Size Sensor PWB (PL12.3)

Removal

1. Slide Paper Tray 3 out of the HCF.
2. Disconnect the P/J 110 from the Size Sensor PWB.
3. Remove the screw securing the Tray 3 Paper Size Sensor PWB to the HCF frame and remove the Sensor.

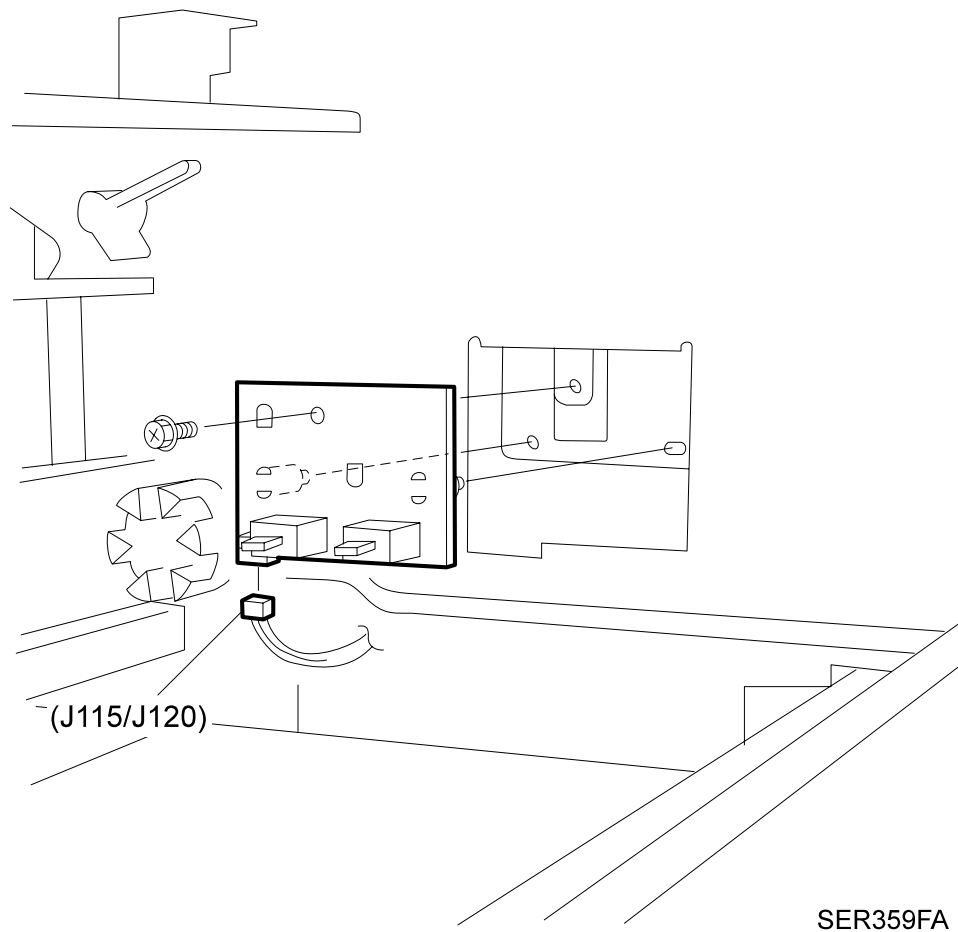
Replacement

1. Slide Paper Tray 3 out of the HCF.
2. Reinstall the Tray 3 Paper Size Sensor PWB onto the HCF frame.

Align the two positioning tabs on the PWB with two holes in the frame.

3. Use one screw to secure the PWB to the frame.
4. Reconnect the P/J 110 to the Size Sensor PWB.
5. Reinstall Paper Tray 3.

RRP 5.12 Tray 4 and Tray 5 Paper Size Sensor PWBs (PL12.3)



SER359FA

RRP 5.12 Tray 4 and Tray 5 Paper Size Sensor PWBs (PL12.3)

Removal

1. Remove Tray 4 (RRP 5.22) and Paper Tray 5 (RRP 5.29) from the HCF.
2. Disconnect the P/J from the Size Sensor PWB.
3. Remove the screw securing the Size Sensor PWB to the HCF frame, pull the PWB straight out and remove it from the frame.

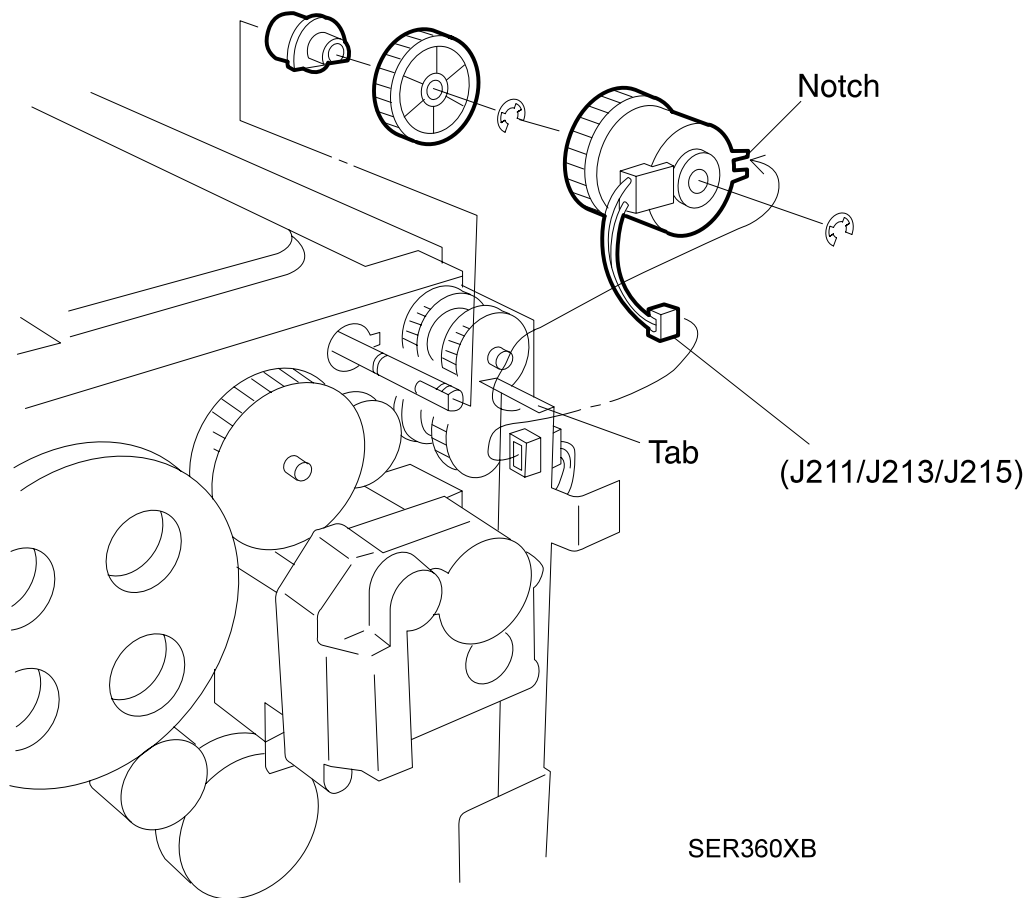
Replacement

1. Remove Paper Tray 4 and Paper Tray 5.
2. Reinstall the Paper Size Sensor PWB onto the HCF frame.

Align the positioning tabs and screw holes.

3. Reconnect the P/J to the Size Sensor PWB.
4. Use one screw to secure the PWB to the frame.
5. Reinstall Paper Tray 4 and Paper Tray 5.

RRP 5.13 Trays 3, 4, and 5 Feed Clutches (PL12.5, PL12.7, PL12.9)



SER360XB

RRP 5.13 Trays 3, 4, and 5 Feed Clutches (PL12.5, PL12.7, PL12.9)

Removal and replacement of the three Feed Clutches are almost identical.

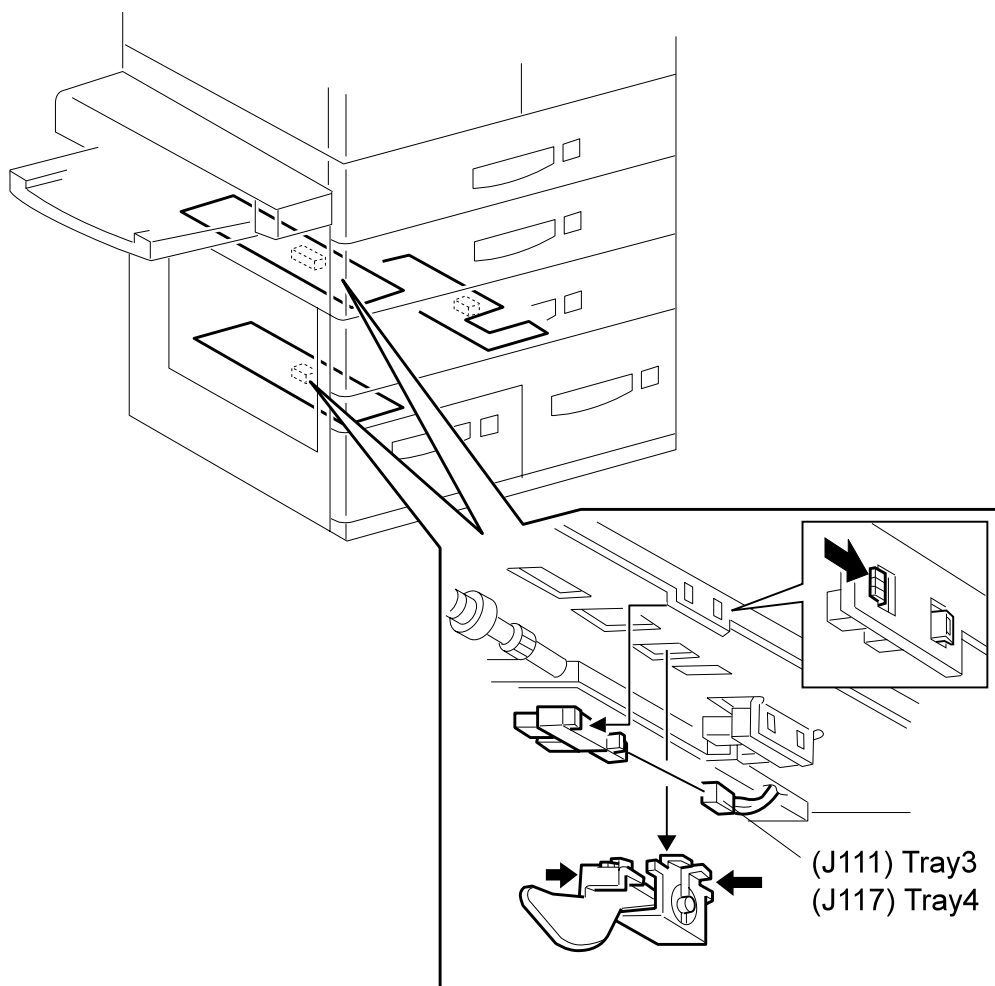
Removal

1. Remove the Rear Cover (RRP 5.2).
2. Remove the Paper Tray associated with the Feed Clutch you are going to remove.
3. Disconnect the P/J from the Feed Clutch.
4. Remove the E-ring securing the Feed Clutch to the Feed Shaft and slide the Clutch off of the Shaft.

Replacement

1. Position the Feed Clutch on the Feed Shaft so the notch on the Clutch lines up with the tab on the frame.
2. Slide the Feed Clutch onto the Feed Shaft and use an E-ring to secure Clutch to the Shaft.
3. Reconnect the Feed Clutch P/J.
4. Reinstall the Paper Tray.
5. Reinstall the HCF Rear Cover (RRP 5.2).

RRP 5.14 Trays 3, 4, and 5 No Paper Actuators (PL12.3 & PL12.4)



SER225FA

SER225FA

RRP 5.14 Trays 3, 4, and 5 No Paper Actuators (PL12.3 & PL12.4)

Use this procedure for removing and replacing the No Paper Actuator for Trays 3, 4, and 5.

Removal

1. Remove the Paper Tray associated with the No Paper Actuator you are going to remove.
2. Remove the No Paper Sensor (RRP 5.15) associated with the No Paper Actuator you are going to remove.
3. Squeeze together the sides of the Actuator Bracket and remove the Actuator Bracket from the HCF frame.
4. Press the Actuator out of the Bracket.

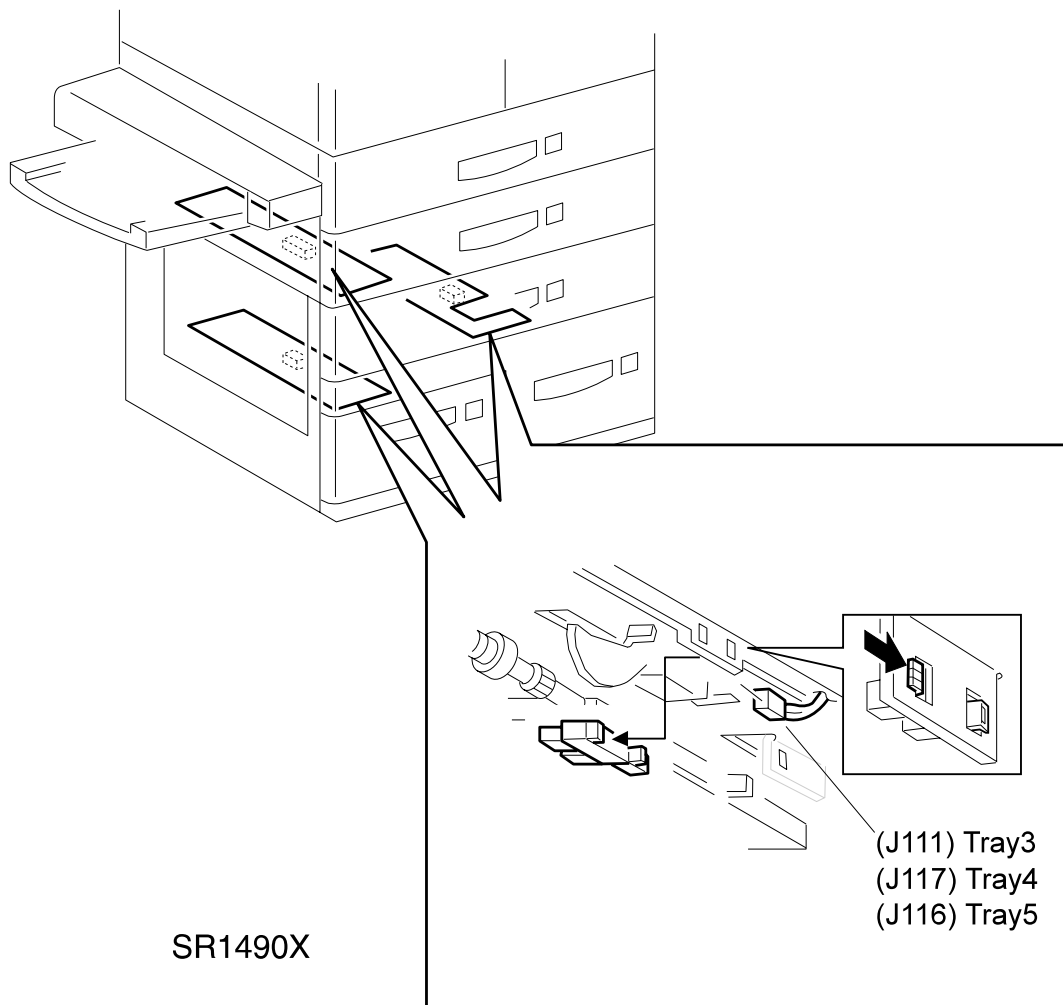
Replacement

1. Press the legs of the Actuator into the slots on the Bracket.

The Actuator snaps in to place.

2. Reinstall the Bracket into the opening in the HCF frame by positioning the Bracket so the Actuator paddle faces the front of the printer.
3. Insert the left side of the Bracket into the opening, then squeeze together the sides of the Bracket while inserting the right side into the opening.
4. Release the Bracket and it should snap into place and secure the Bracket to the frame.
5. Reinstall the No Paper Sensor (RRP 5.15).
6. Reinstall the Paper Tray.

RRP 5.15 Trays 3, 4, & 5 No Paper Sensors (PL12.3 & PL12.4)



SR1490X

RRP 5.15 Trays 3, 4, & 5 No Paper Sensors (PL12.3 & PL12.4)

Use this procedure for removing and replacing the No Paper Sensors for Trays 3, 4, and 5.

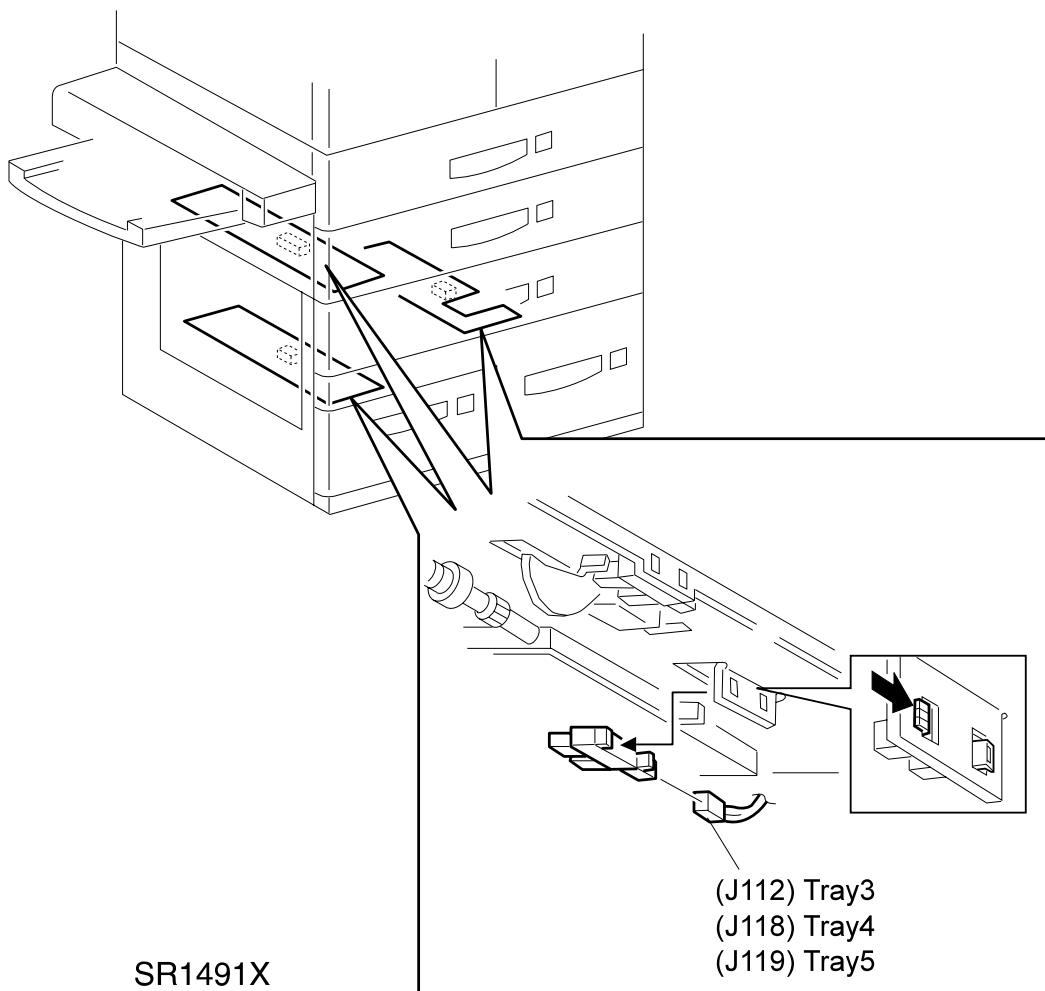
Removal

1. Remove the Paper Tray associated with the No Paper Sensor you are going to remove.
2. Squeeze the Sensor latches and remove the No Paper Sensor from the frame.
3. Disconnect the P/J from the Sensor.

Replacement

1. Reconnect the P/J to the Sensor.
2. Push the No Paper Actuator up and out of the way.
3. Position the Sensor with the arms of the Sensor facing the Actuator.
4. Reinstall the No Paper Sensor into the slot in the frame by first inserting the front latch of the Sensor through the front opening in the frame.
5. Press in on the rear latch and inserting it into the rear opening.
6. Release the rear latch and the Sensor snaps into place.
7. Release the Actuator and make sure it moves freely between the arms of the Sensor.
8. Reconnect the P/J to the Sensor.
9. Reinstall the Paper Tray.

RRP 5.16 Trays 3, 4, & 5 Paper Level Sensors (PL12.3 & PL12.4)



SR1491X

RRP 5.16 Trays 3, 4, & 5 Paper Level Sensors (PL12.3 & PL12.4)

Use this procedure for removing and replacing the Paper Level Sensors for Trays 3, 4, and 5.

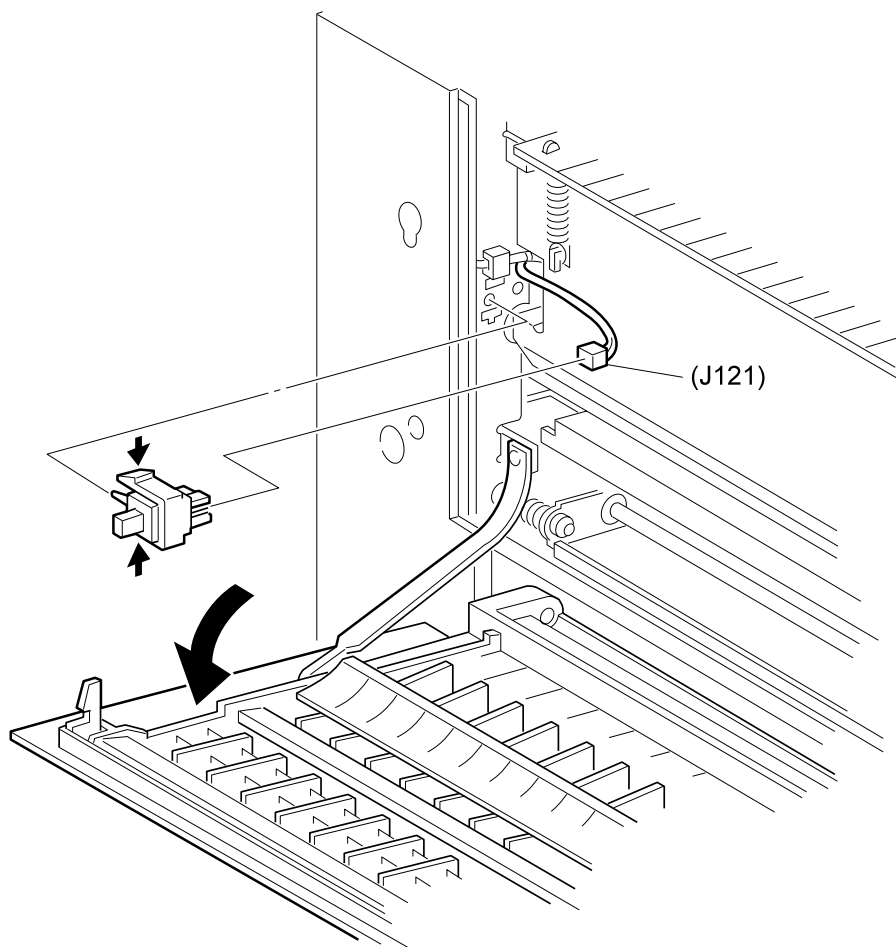
Removal

1. Remove the Paper Tray associated with the Paper Level Sensor you are going to remove.
2. Squeeze the Sensor latches and remove the Paper Level Sensor from the frame.
3. Disconnect the P/J from the Sensor.

Replacement

1. Reconnect the P/J to the Sensor.
2. Position the Sensor with the arms of the Sensor facing the Feed Assembly Actuator.
3. Reinstall the Paper Level Sensor into the slot in the frame by first inserting the front latch of the Sensor through the front opening in the frame.
4. Press in on the rear latch and inserting it into the rear opening.
5. Release the rear latch and the Sensor snaps into place.
6. Release the Actuator and make sure it moves freely between the arms of the Sensor.
7. Reconnect the P/J to the Sensor.
8. Reinstall the Paper Tray.

RRP 5.17 Left Cover Interlock Switch (PL12.11)



SER232F

SER232F

RRP 5.17 Left Cover Interlock Switch (PL12.11)

Removal

1. Open the Left Cover Assembly.
2. Squeeze together the top and bottom of the Interlock Switch to release the Switch latches, and pull the Switch away from the HCF frame.
3. Disconnect P/J 121 from the Switch.

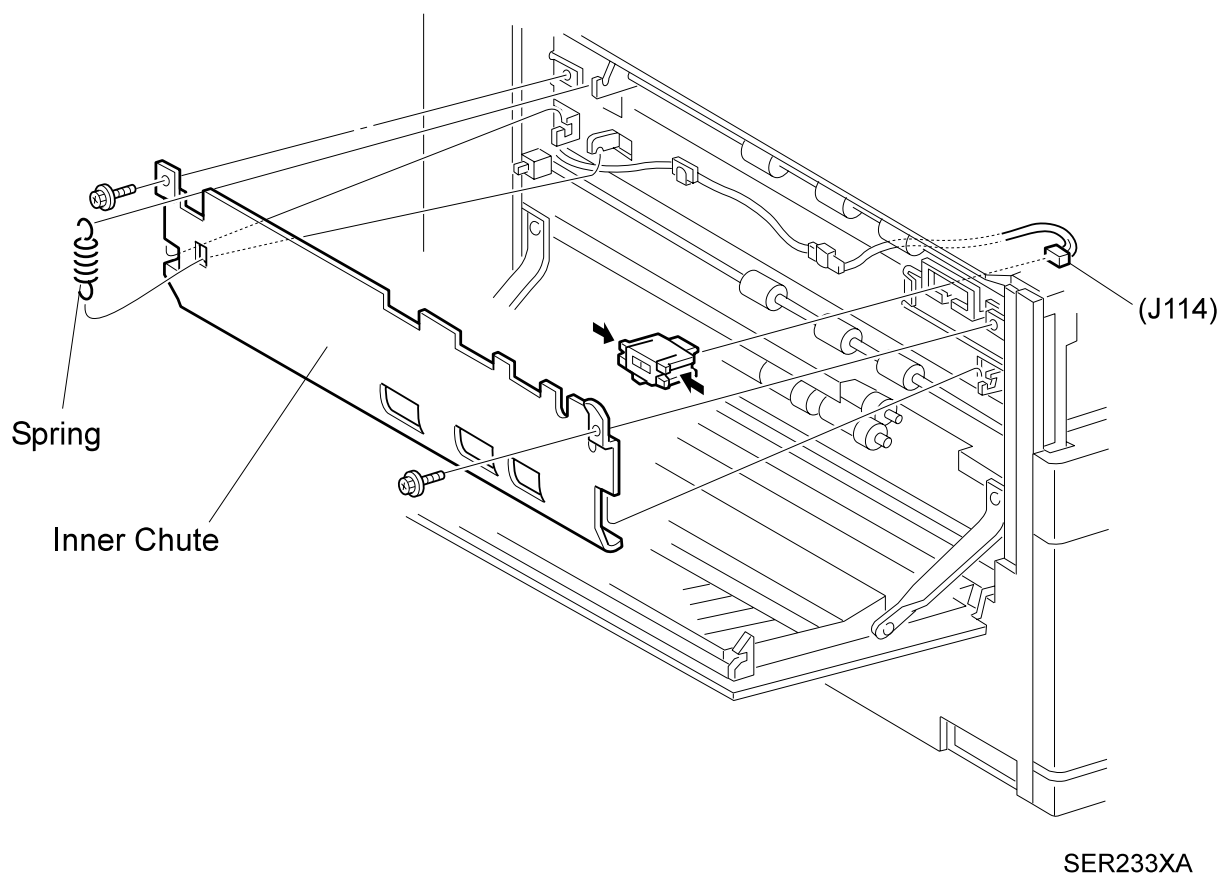
Replacement

1. Reconnect P/J 121 to the Left Cover Interlock Switch.
2. Squeeze together the top and bottom of the Switch while inserting the bottom of the Switch into the opening in the frame.
3. Insert the top of the Switch into the opening.

The Switch snaps into place.

4. Close the Left Cover Assembly.

RRP 5.18 Tray 3 Take Away Sensor (PL12.11 - 10)



SER233XA

RRP 5.18 Tray 3 Take Away Sensor (PL12.11 - 10)

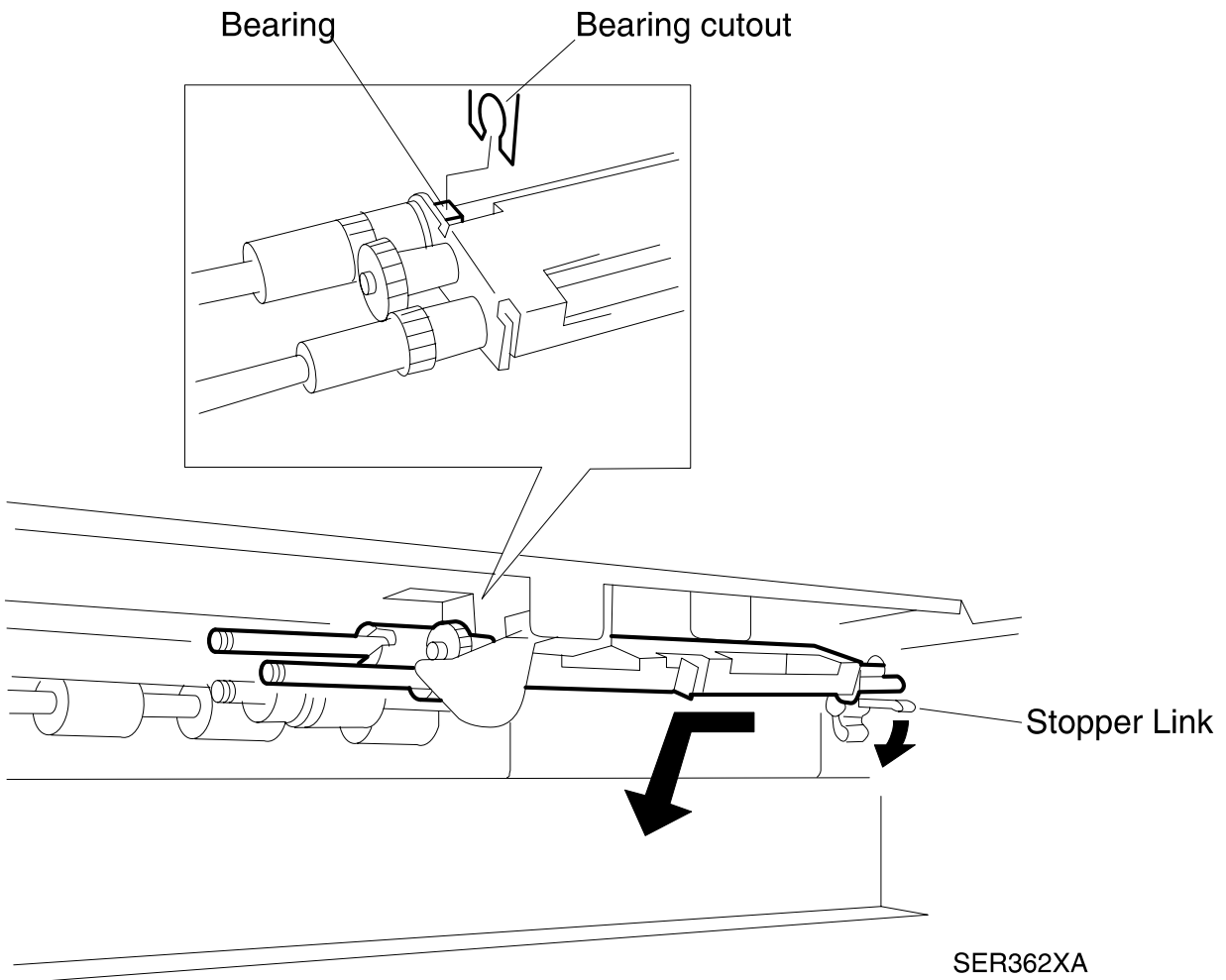
Removal

1. Open the Left Cover Assembly.
2. Remove the Spring that is located on the left side of the Inner Chute.
3. Remove the two screws securing the Inner Chute to the HCF frame, and remove the Inner Chute.
4. Squeeze together the four latches that are located at the four corners of the Sensor, while pulling the Sensor forward.
5. Remove the Sensor from the HCF frame.
6. Disconnect P/J 114 from the Sensor.

Replacement

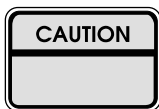
1. Reconnect P/J 114 to the Sensor.
2. Position the Sensor with the positioning tab facing down.
3. Insert the Sensor into the opening in the HCF frame.
4. Press the Sensor into the opening until it snaps into place.
5. Reinstall the Inner Chute onto the HCF frame.
6. Use two screws to secure the Inner Chute.
7. Reinstall the Spring to the left side of the Inner Chute.
8. Close the Left Cover Assembly.

RRP 5.19 Tray 3 Feeder Assembly (PL12.5)



SER362XA

RRP 5.19 Tray 3 Feeder Assembly (PL12.5)



Take care not to break or dislodge the No Paper Actuator when removing or replacing the Tray 3 Feeder Assembly.

Removal

1. Remove Tray 3 from the HCF.
2. Remove the Rear Cover (RRP 5.2).
3. Open the Left Cover Assembly.
4. Remove the Spring that is located on the left side of the Inner Chute.
5. Remove the two screws securing the Inner Chute to the HCF frame, and remove the Inner Chute.
6. Remove the screw securing the Feed In Chute (PL12.6.16) to the HCF frame.
7. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute to the front of the HCF.

Sliding the Feed In Chute to the front unhooks the Chute from the HCF frame.

8. Push the Chute back and remove it from the frame.
9. Remove Tray 3 Feed Clutch (RRP 5.13).
10. Remove the E ring that is securing the Feed Gear (located behind the Feed Clutch) to the shaft, and remove the Feed Gear and Bearing.
11. Hold down the Stopper Link while you pull the Feeder Assembly to the front of the HCF frame.
12. Remove the Feeder Assembly from Feeder 3.

Replacement

1. Hold down the Stopper Link while you insert the end of the Feed Shaft into the opening in the rear of the HCF frame.
2. Slide the Bearing into the Bearing cutout (refer to the figure).
3. When both the Bearing is in place and the end of the Feed Shaft is through the opening in the rear of the frame, release the Stopper Link.

The Nudger Shaft should rest on top of the Stopper Link, and the Link should secure the Feeder Assembly in place on the frame.

4. Make sure the Paper Level Actuator tab on the Feeder is positioned in the center of the arms of the Paper Level Sensor.
5. Slide the Feed Bearing onto the Feed Shaft and press the Bearing into the cutout in the frame.
6. Reinstall the Feed Gear onto the Feed Shaft, and use an E ring to secure it to the Shaft.
7. Reinstall Tray 3 Feed Clutch (RRP 5.13).
8. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute under the Retard Assembly and against the HCF frame.
9. Slide the Chute to the rear of the HCF so the rear of the Chute hooks on to the frame, and the screw hole at the front of the Chute aligns with the screw hole in the HCF frame.

This page intentionally left blank.

10. Use one screw to secure the Feed In Chute to the HCF frame.
11. Reinstall the Inner Chute onto the HCF frame.
12. Use two screws to secure the Inner Chute.
13. Reinstall the Spring to the left side of the Inner Chute.
14. Reinstall the Rear Cover (RRP 5.2).
15. Reinstall Tray 3.

RRP 5.20 Tray 3 Retard Assembly (PL12.6)

SER364F

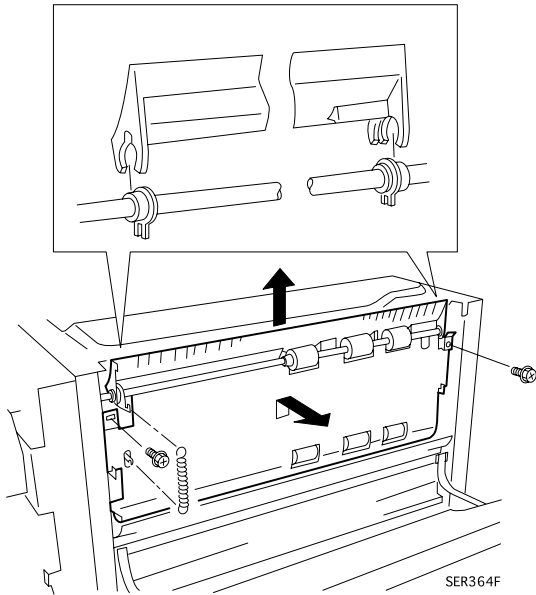


Figure 1

SER363FA

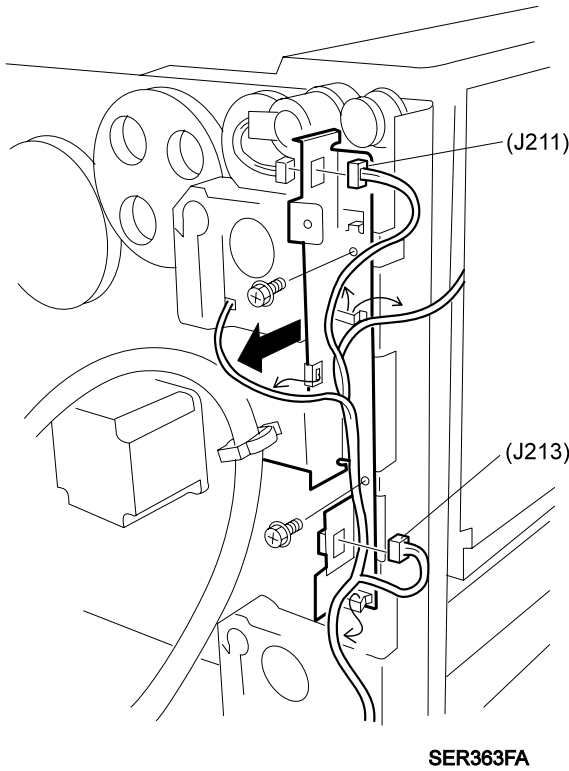


Figure 2

RRP 5.20 Tray 3 Retard Assembly (PL12.6)

Removal

1. Remove Tray 3 from the HCF.
2. Remove the Rear Cover (RRP 5.2).
3. Remove the HCF Left Cover (RRP 5.3)
4. Open the Left Cover Assembly.
5. Remove the Spring that is located on the left side of the Inner Chute (Figure 1).
6. Remove the two screws securing the Inner Chute to the HCF frame, and remove the Inner Chute.
7. Pull the plastic Upper Take Away Chute off of the Bearings, and remove the Chute.
8. Remove the screw securing the Feed In Chute (PL12.6.16) to the HCF frame.
9. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute to the front of the HCF.
Sliding the Feed In Chute to the front unhooks the Chute from the HCF frame.
10. Push the Chute back and remove it from the frame.
11. Disconnect P/J 211 from Tray 3 Feed Clutch.
12. Disconnect J211 and J213 from the Bracket (PL 12.4.8) (Figure 2), and free the wire harness from the harness clips.
13. Remove the two screws securing the Bracket to the HCF frame, and remove the Bracket.
14. Remove Tray 3 Feed Clutch (RRP 5.13).
15. Remove the E ring securing the Drive Transmission Gear to the shaft and remove the Gear.
16. Remove the E ring securing the Take Away Gear to the shaft and remove the Gear.
17. Remove the E ring securing the Fixed Gear to the shaft and remove the Gear.
18. Slide the Retard Gear off of the shaft.
19. Slide the Take Away Bearing off of the shaft.
20. Slide the Retard Assembly to the front of the HCF, then swing the rear of the Assembly out of the HCF (Figure 3).

RRP 5.20 Tray 3 Retard Assembly (PL12.6) continued

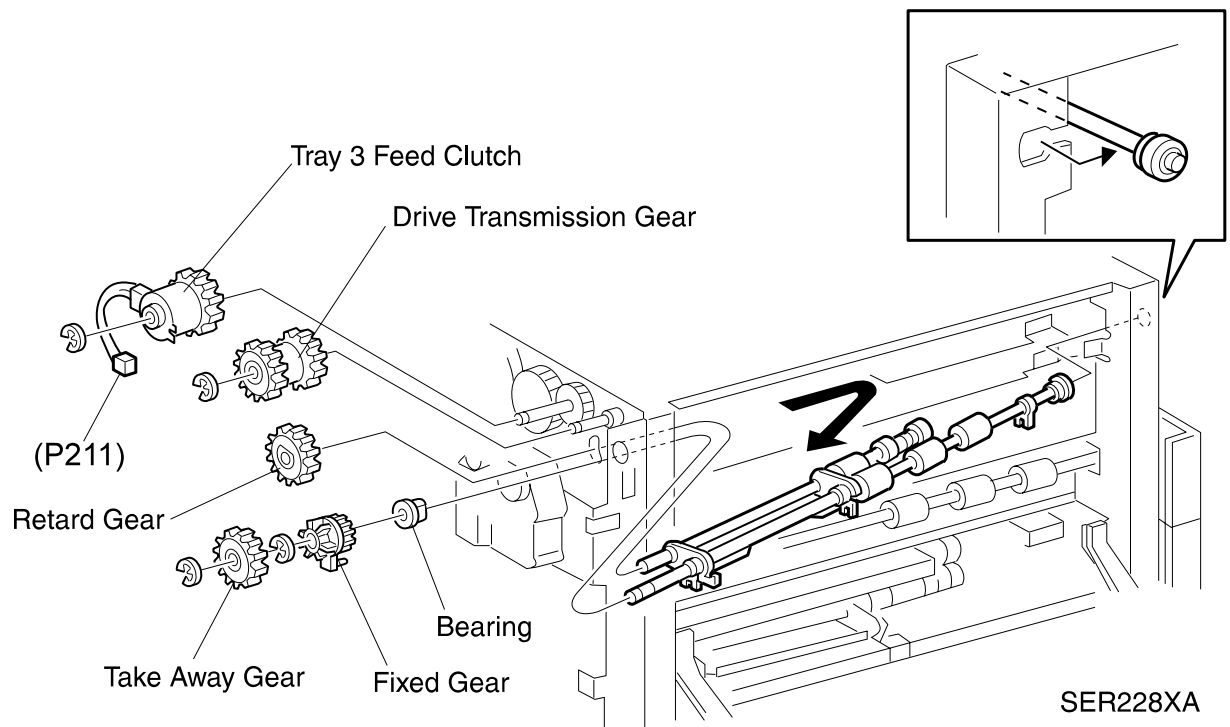


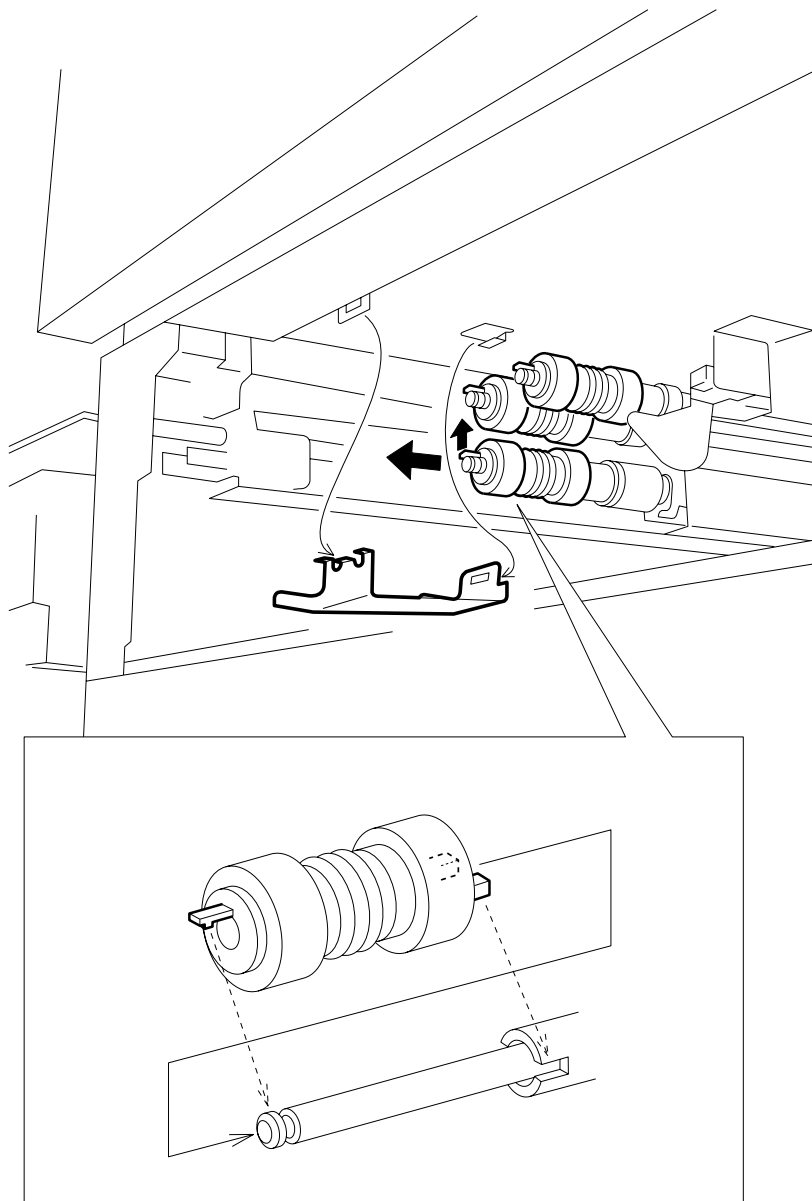
Figure 3

RRP 5.20 Tray 3 Retard Assembly (PL12.6) continued

Replacement

1. Insert the Retard Assembly into the HCF as shown in the figure.
2. Insert the bearing end of the Shaft into the bearing cutout at the front of the HCF frame.
3. Slide the Shaft far enough to the front so you can insert the rear of the Shaft into the cutout in at the rear of the HCF frame.
4. Slide the Shaft to the rear, and seat the Bearing at the front of the shaft into the bearing cutout at the front of the HCF frame (Figure 3).
5. Slide the Take Away Bearing onto the shaft (Figure 3).
6. Reinstall the Retard Gear.
7. Reinstall the Fixed Gear and use an E ring to secure it to the shaft.
8. Reinstall the Take Away Gear and use an E ring to secure it to the shaft.
9. Reinstall the Drive Transmission Gear and use an E ring to secure it to the shaft.
10. Reinstall the Bracket to the HCF frame, and use two screws to secure it.
11. Reinstall the Tray 3 Feed Clutch (RRP 5.13).
12. Reconnect J211 and J213 to the Bracket, and route the wire harness through the harness clips.
13. Lift the Retard Shaft up and out of the way while you slide the Feed In Chute under the Retard Assembly and against the HCF frame.
14. Slide the Chute to the rear of the HCF so the rear of the Chute hooks on to the frame, and the screw hole at the front of the Chute aligns with the screw hole in the HCF frame.
15. Use one screw to secure the Feed In Chute to the HCF frame.
16. Reinstall the plastic Upper Take Away Chute onto the three bearings on the Take Away Roll (Figure 1).
17. Reinstall the Inner Chute onto the HCF frame.
18. Use two screws to secure the Inner Chute.
19. Reinstall the Spring to the left side of the Inner Chute.
20. Reinstall the HCF Left Cover (RRP 5.3).
21. Reinstall the Rear Cover (RRP 5.2).
22. Reinstall Tray 3.

RRP 5.21 Tray 3 Nudger, Feeder, and Retard Rolls (PL12.5 & PL 12.6)



SER309FA

SER309FA

RRP 5.21 Tray 3 Nudger, Feeder, and Retard Rolls (PL12.5 & PL 12.6)

Replace the Feeder, Nudger, and Retard Rolls as a unit.

NOTE

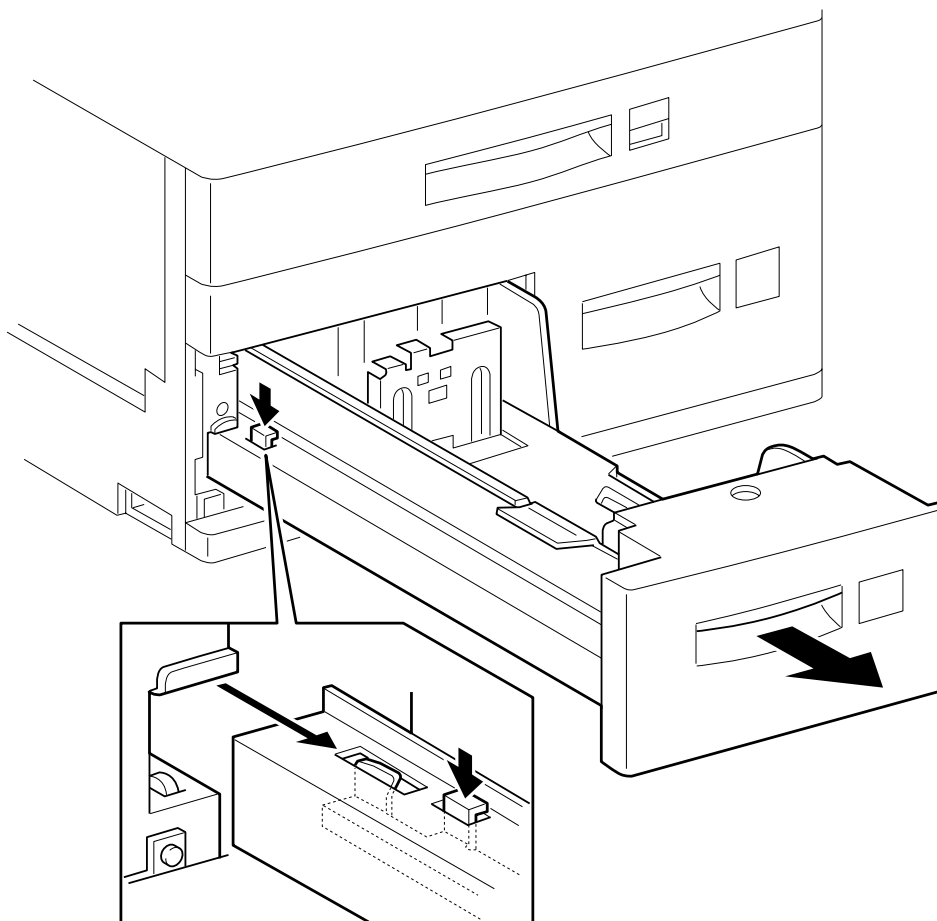
Removal

1. Remove the Tray 3.
2. Use a flat blade screwdriver to unhook the front of the Upper Chute, and remove the Chute.
3. Pull out on the Retard Roll latch and slide the Retard Roll off of the shaft.
4. Repeat step 3 for the Nudger and Feeder Rolls.

Replacement

1. Position the Roll with the latch end facing out, and slide the Roll onto the Feed shaft.
2. Rotate the Roll so the end tabs line up with the slots on the shaft One Way Clutch (PL12.5.7) and push the Roll down the shaft until the latch locks the Roll into place.
3. Repeat steps 1 and 2 for the Nudger and Retard Rolls.
4. Reinstall the Chute by sliding the opening in the rear of the Chute into the tab on the frame, then hooking the tab at the front of the Chute into the opening on the frame.
5. Reinstall Tray 3.
6. Reset the Paper Feeder Usage Log for the feeder with the new Rolls.
 - a. Enter Diagnostics.
 - b. Enter either 30-8 (for Tray 3 log).
 - c. Press [1] to view the log.
 - d. Use the Control Panel keys to scroll to each digit of the displayed log, and set each number to 0 (zero).
 - e. Press [1] to write the new number to the log.
 - f. Exit Diagnostics.

RRP 5.22 HCF Tray 4 (PL13.1)



SER234F

SER234F

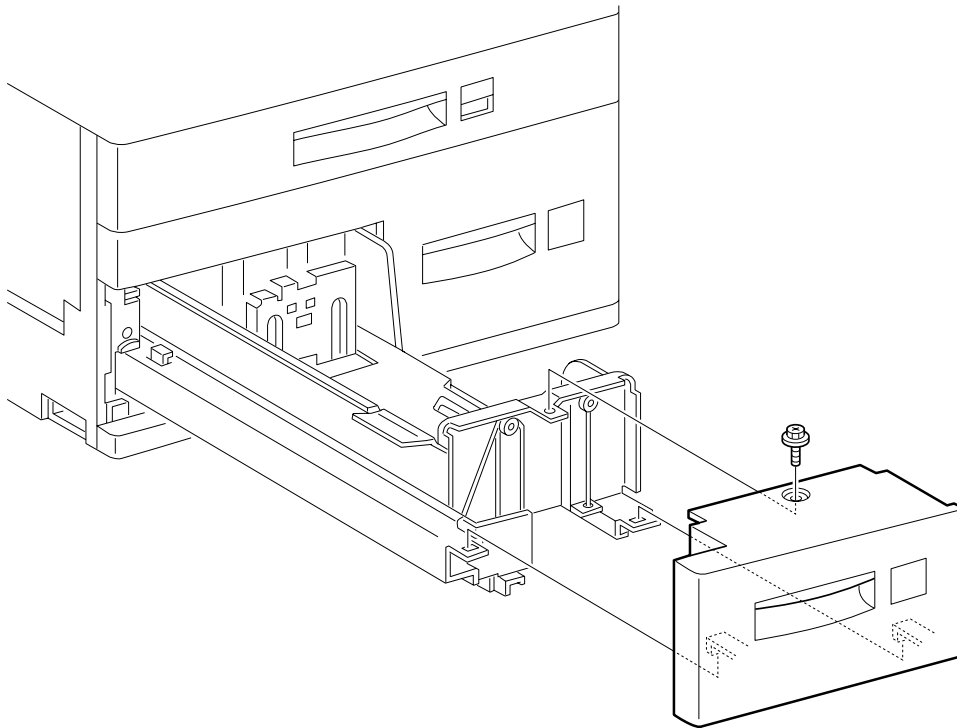
Removal

1. Pull Tray 4 out until it stops.
2. Press and hold the tray release button while you slide Tray 4 out of the HCF.

Replacement

1. Align the guide rails on both sides of Tray 4 with the guide rails on the HCF frame.
2. Push Tray 4 all the way into the HCF.

RRP 5.23 Tray 4 Front Cover (PL13.1)



SER235F

SER235F

RRP 5.23 Tray 4 Front Cover (PL13.1)

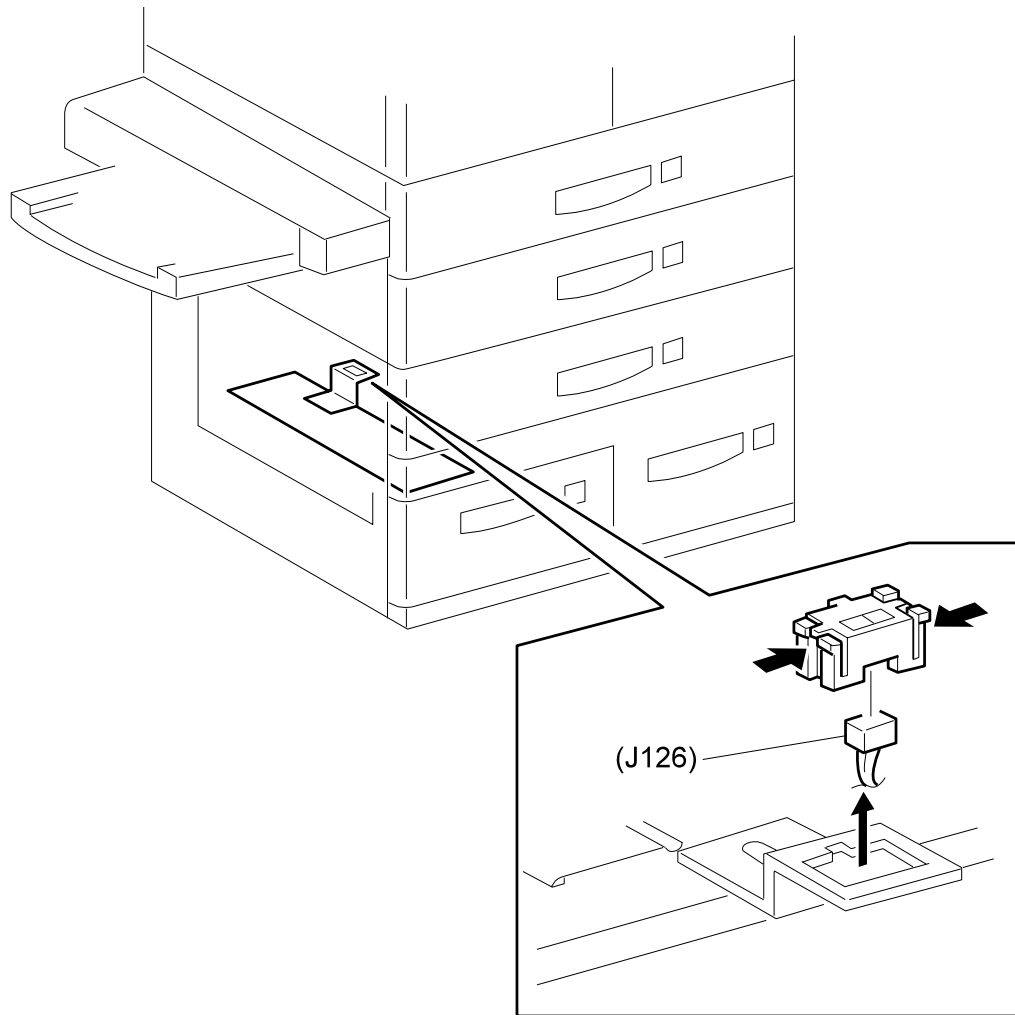
Removal

1. Slide Tray 4 a few inches out of the HCF.
2. Remove the screw securing the Tray 4 Front Cover to the Tray frame.
3. Lift up and out to remove the Front Cover.

Replacement

1. Insert the two latches located on the inside of the Front Cover into the two slots in the Tray frame.
2. Press the Cover against the frame.
3. Use one screw to secure the Cover to the frame.
4. Slide Tray 4 back into the HCF.

RRP 5.24 Tray 4 Take Away Sensor (PL12.4 - 7)



SER227F

SER227F

RRP 5.24 Tray 4 Take Away Sensor (PL12.4 - 7)

Removal

1. Remove Tray 3, Tray 4 (RRP 5.22), and Tray 5 (RRP 5.29) from the HCF.
2. Squeeze together the four latches that are located at the four corners of the Tray 4 Take Away Sensor, while pulling the Sensor up and out of the cutout in the HCF frame.
3. Disconnect P/J 126 from the Sensor.

Replacement

1. Position the Sensor above the cutout in the HCF frame, and with the P/J facing down.
2. Insert the Sensor into the cutout, and press down on the Sensor to snap it into place.
3. Reconnect P/J 126 to the Sensor.
4. Reinstall Tray 5 (RRP 5.29), Tray 4 (RRP 5.22), and Tray 3.

RRP 5.25 Tray 4 Take Away Roll (PL12.8 - 13)

Figure 1

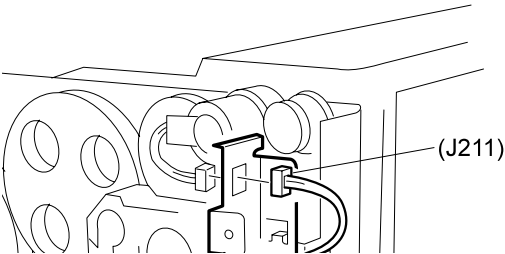
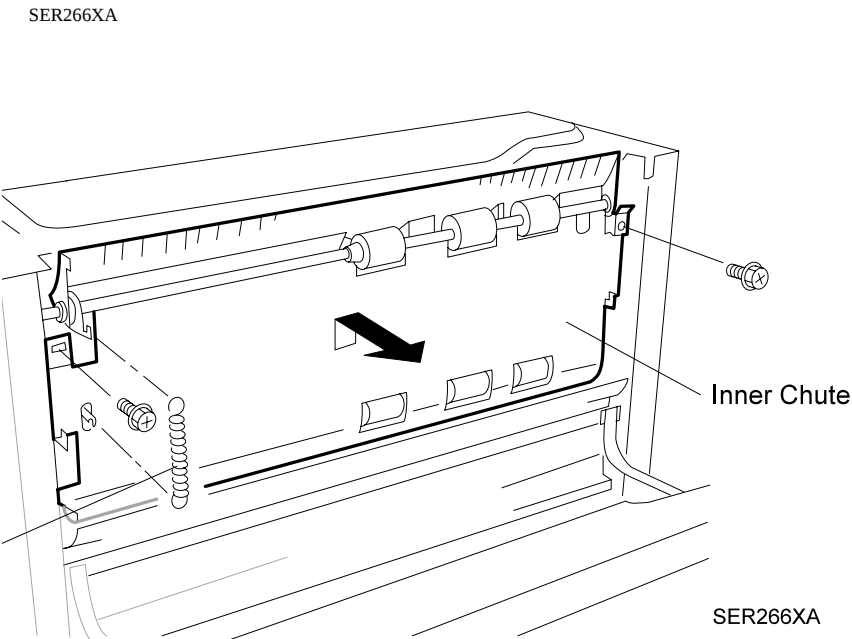


Figure 2

RRP 5.25 Tray 4 Take Away Roll (PL12.8 - 13)

Removal

1. Slide out Tray 5.
2. Remove the Rear Cover (RRP 5.2).
3. Remove the HCF Left Cover (RRP 5.3)
4. Open the Left Cover Assembly.
5. Remove the Spring that is located on the left side of the Inner Chute (Figure 1).
6. Remove the two screws securing the Inner Chute to the HCF frame, and remove the Inner Chute.
7. Disconnect P/J 211 from Tray 3 Feed Clutch.
8. Disconnect J211 and J213 from the Bracket (PL 7.4.8) (Figure 2), and free the wire harness from the harness clips.
9. Remove the two screws securing the Bracket to the HCF frame, and remove the Bracket.
10. Remove the E ring securing Gear 22 to the Take Away Roll shaft (Figure 3).
11. Hold on to Gear 22 as you slide Tray 4 Take Away Roll toward the front of the HCF.
12. Remove Gear 22 and the Bearing.
13. Remove Tray 4 Take Away Roll.

RRP 5.25 Tray 4 Take Away Roll (PL12.8 - 13) continued

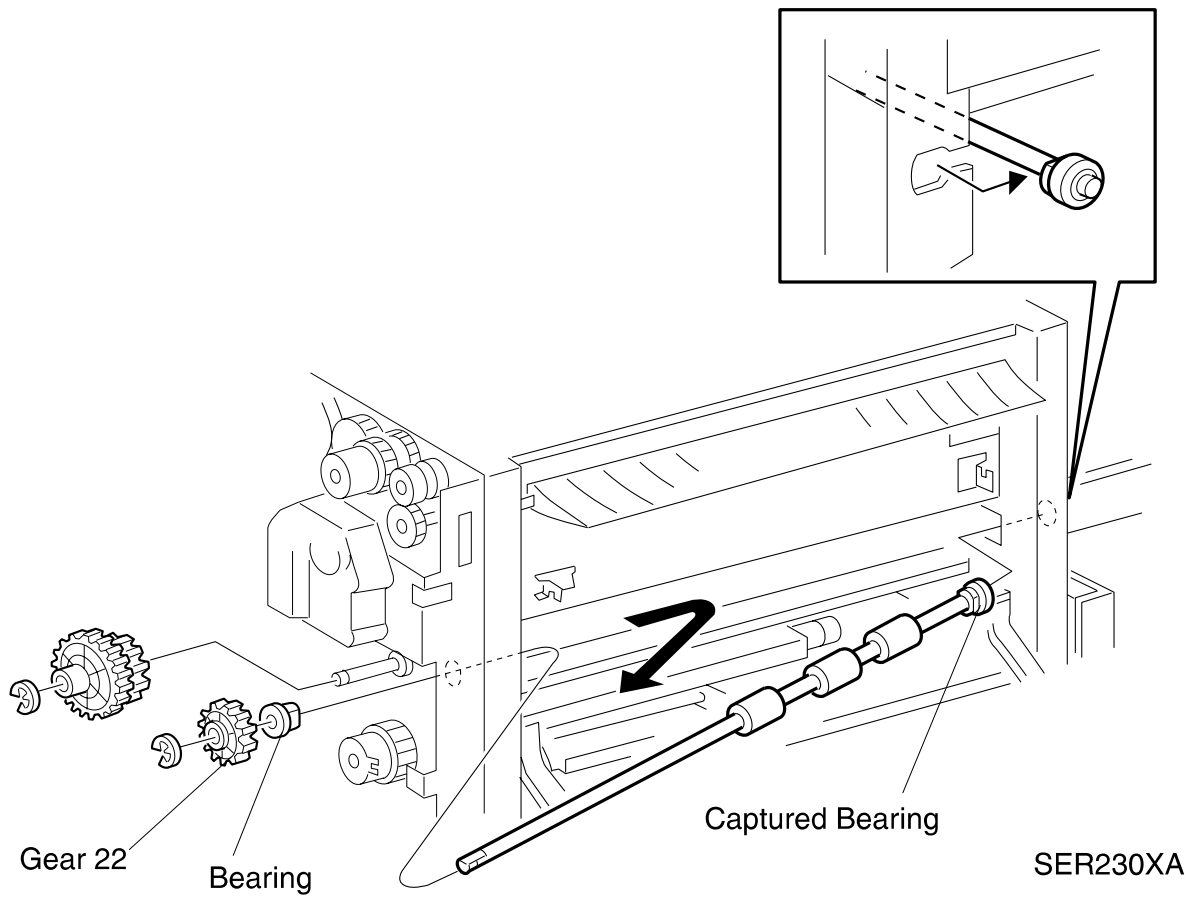


Figure 3

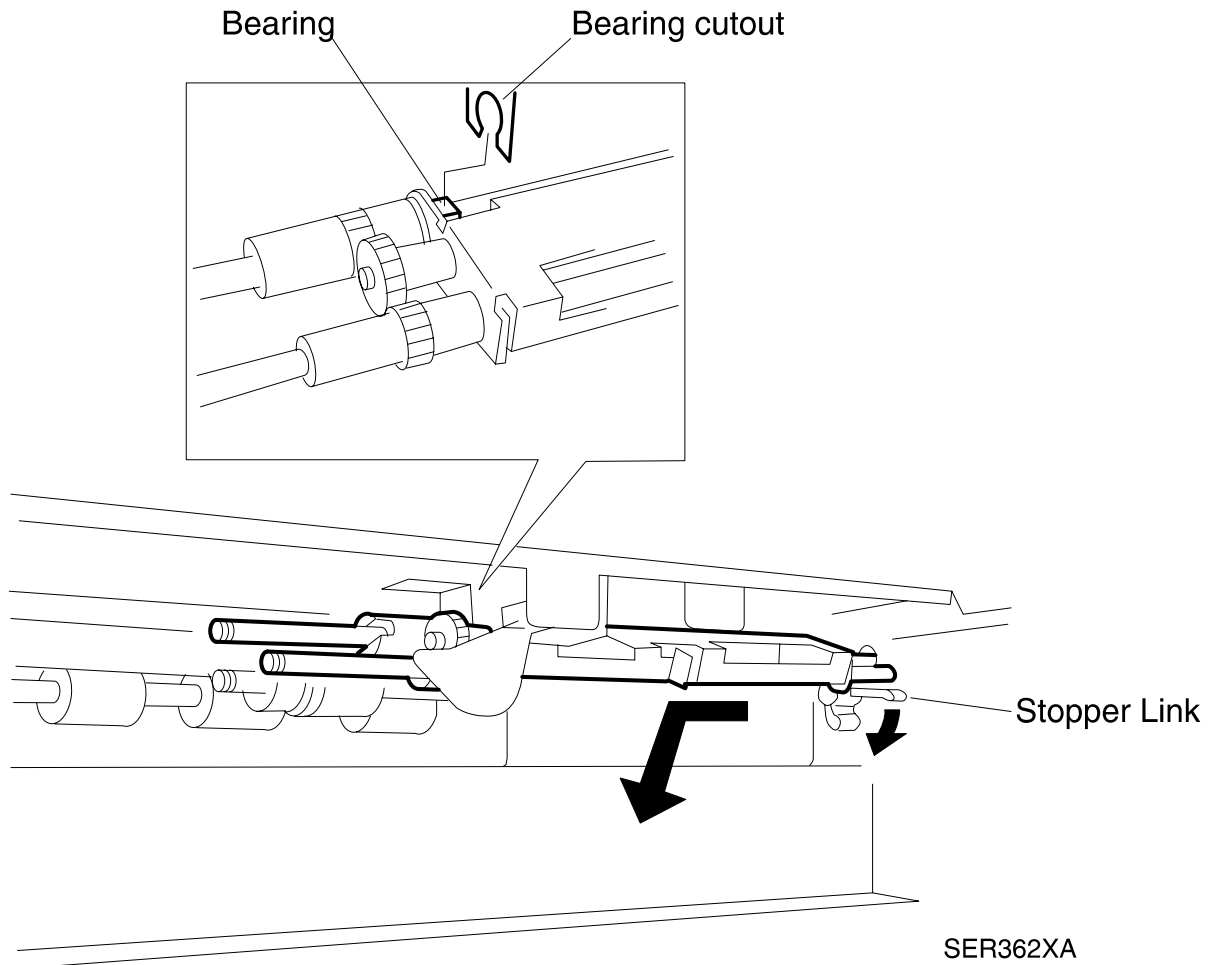
SER230XA

RRP 5.25 Tray 4 Take Away Roll (PL12.8 - 13) continued

Replacement

1. Slide the captured bearing end of the Take Away Roll shaft into the bearing hole at the front of the HCF frame (Figure 3).
2. Reinstall the Bearing into the bearing hole at the rear of the HCF.
3. Place Gear 22 over the Bearing and hold it there while you reinstall the Take Away Roll shaft.
4. Slide the rear of the Take Away Roll shaft through the bearing and Gear 22.
5. Reposition the shaft so the captured bearing at the front end of the shaft rests in the bearing hole at the front of the HCF.
6. Use an E ring to secure Gear 22 to the Take Away Roll shaft.
7. Reinstall the Bracket to the HCF frame, and use two screws to secure it frame.
8. Reconnect J211 and J213 to the Bracket, and route the wire harness through the harness clips.
9. Reconnect P/J211 to Tray 3 Feed Clutch.
10. Reinstall the Inner Chute to the HCF frame, and use two screws to secure it to the frame.
11. Reinstall the Spring to the left side of the Inner Chute.
12. Reinstall the HCF Left Cover (RRP 5.3).
13. Reinstall the Rear Cover (RRP 5.2).
14. Slide Tray 5 back into the HCF.

RRP 5.26 Tray 4 Feeder Assembly (PL12.7)



SER362XA

RRP 5.26 Tray 4 Feeder Assembly (PL12.7)

Removal

1. Remove Tray 4 from the HCF (RRP 5.22).
2. Remove the HCF Rear Cover (RRP 5.2).
3. Open the Left Cover Assembly.
4. Remove Tray 4 Feed Clutch (RRP 5.13).
5. Remove the E ring securing the Feed Shaft Bearing to the HCF frame, and slide the Bearing off of the shaft.
6. Hold down the Stopper Link while you pull the Feeder Assembly to the front of the HCF frame.
7. Remove the Feeder Assembly from Feeder 4.

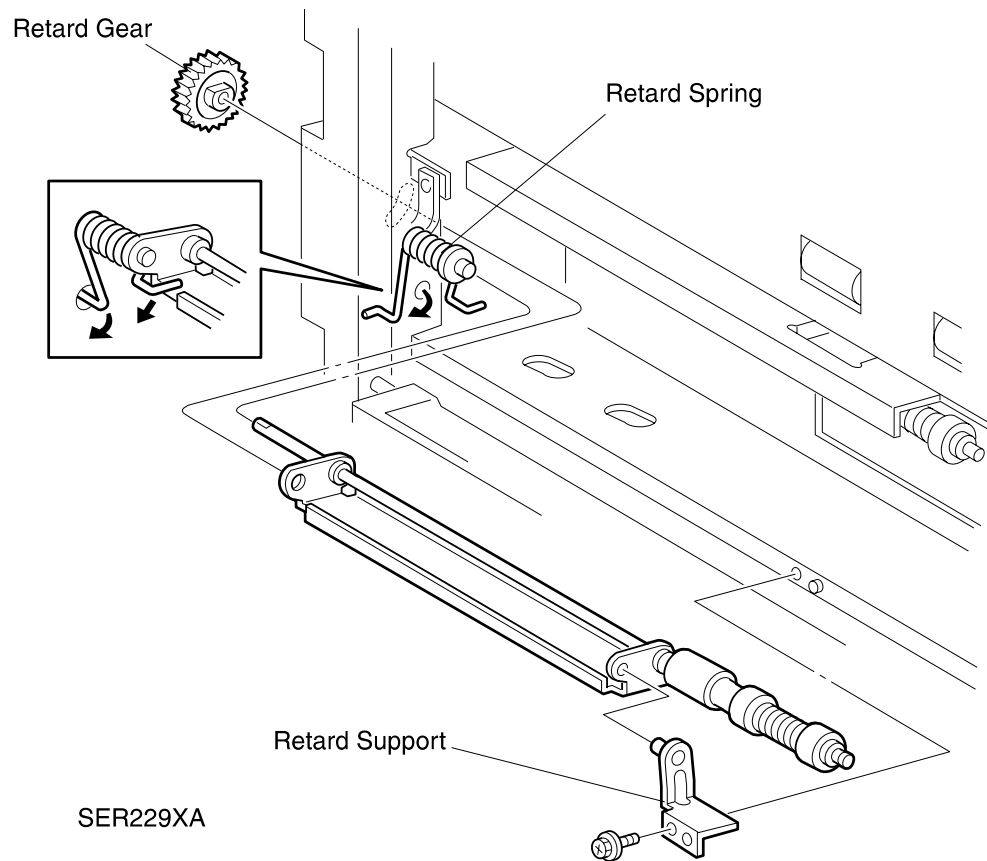
Replacement

1. Hold down the Stopper Link while you insert the end of the Feed Shaft into the opening in the rear of the HCF frame.
2. Slide the Bearing into the Bearing cutout (refer to the figure).
3. When both the Bearing is in place and the end of the Feed Shaft is through the opening in the rear of the frame, release the Stopper Link.

The Nudger Shaft should rest on top of the Stopper Link, and the Link should secure the Feeder Assembly in place on the frame.

4. Make sure the Paper Level Actuator tab on the Feeder is positioned in the center of the arms of the Paper Level Sensor.
5. Slide the Feed Shaft Bearing onto the Feed Shaft and press the Bearing into the cutout in the frame.
6. Use an E ring to secure the Bearing to the shaft.
7. Reinstall Tray 4 Feed Clutch (RRP 5.13).
8. Reinstall the Rear Cover (RRP 5.2).
9. Reinstall Tray 4.

RRP 5.27 Tray 4 Retard Assembly (PL12.8)



SER229XA

RRP 5.27 Tray 4 Retard Assembly (PL12.8)

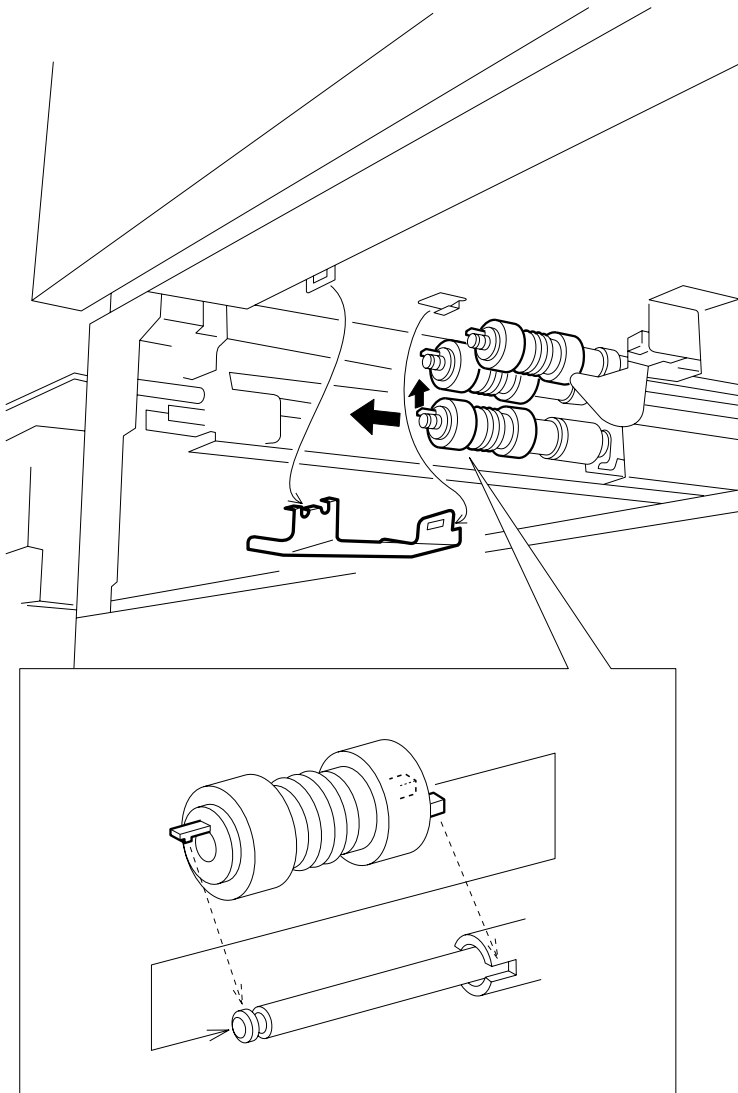
Removal

1. Remove Tray 4 from the HCF (RRP 5.22).
2. Remove the HCF Rear Cover (RRP 5.2).
3. Open the Left Cover Assembly.
4. Remove the screw securing the Left Cover Left Strap to the HCF frame, and move the Strap out of the way.
5. Unhook one arm of the Retard Spring from the hole in the HCF frame, and release the Spring.
6. Unhook the other arm of the Retard Spring from the Retard Assembly.
7. Remove the screw securing the Retard Support to the HCF frame, and remove the Support.
8. Hold on to the Retard Gear while you slide the Assembly off of the Spring shaft and out of the HCF.

Replacement

1. Position the Retard Assembly so the opening in the Assembly lines up with the Spring shaft.
2. Hold the Retard Gear in place against the frame while you slide the Retard Assembly to the rear of the HCF, making sure the Assembly shaft slides through the center of the Retard Gear and the Spring shaft slides through the opening in the Assembly (see the figure).
3. Insert the shaft of the Retard Support through the opening in the front of the Retard Assembly.
4. Reinstall the Retard Support onto the HCF frame, and use one screw to secure it to the frame.
5. Reinstall the Left Cover Left Strap to the HCF frame, and use one screw to secure it to the frame.
6. Reinstall the HCF Rear Cover (RRP 5.2).
7. Reinstall Tray 4 into the HCF (RRP 5.22).

RRP 5.28 Tray 4 Feed, Nudger, and Retard Rolls (PL12.7 & 12.8)



SER309FA

RRP 5.28 Tray 4 Feed, Nudger, and Retard Rolls (PL12.7 & 12.8)

NOTE

Replace the Feeder, Nudger, and Retard Rolls as a unit.

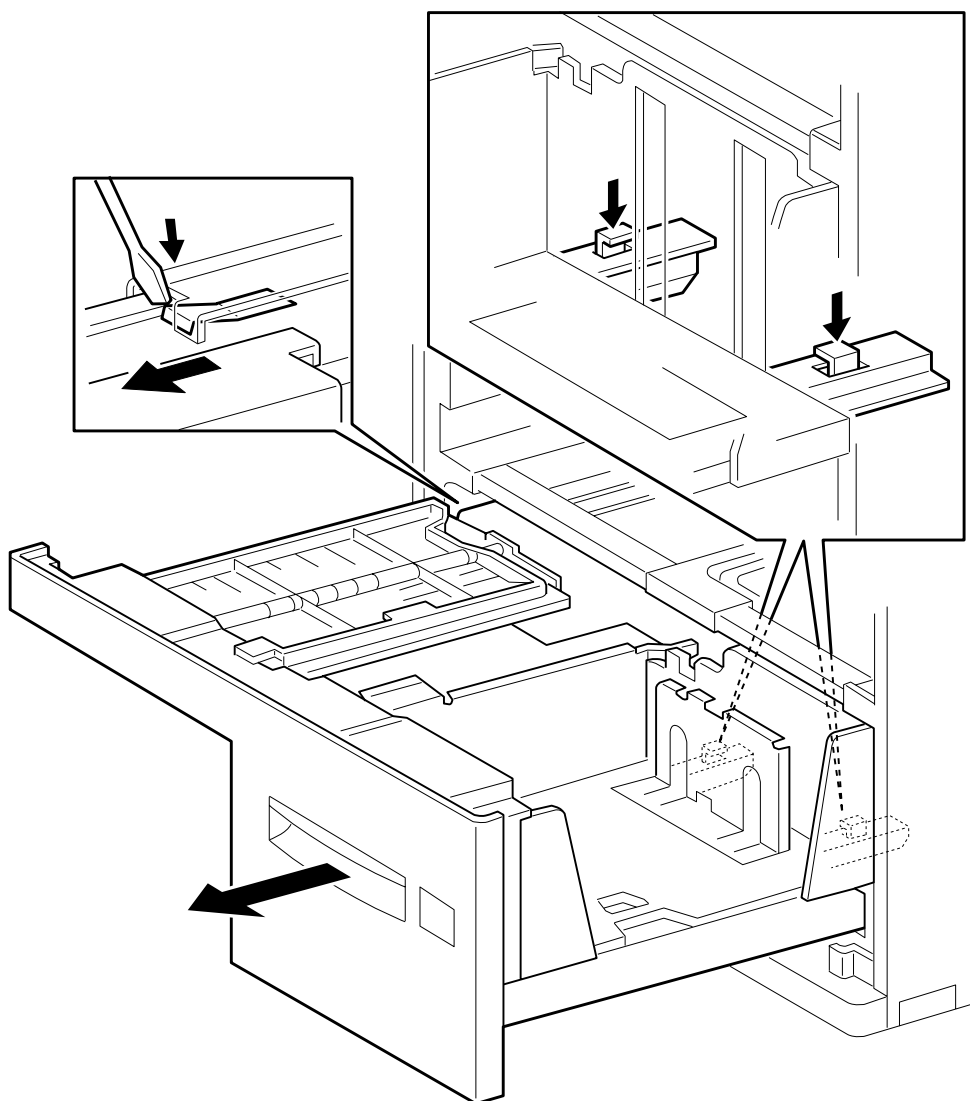
Removal

1. Remove the Tray 4.
2. Use a flat blade screwdriver to unhook the front of the Upper Chute, and remove the Chute.
3. Pull out on the Retard Roll latch and slide the Retard Roll off of the shaft.
4. Repeat step 3 for the Nudger and Feeder Rolls.

Replacement

1. Position the Roll with the latch end facing out, and slide the Roll onto the Feed shaft.
2. Rotate the Roll so the end tabs line up with the slots on the shaft One Way Clutch (PL12.7.6) and push the Roll down the shaft until the latch locks the Roll into place.
3. Repeat steps 1 and 2 for the Nudger and Retard Rolls.
4. Reinstall the Chute by sliding the opening in the rear of the Chute into the tab on the frame, then hooking the tab at the front of the Chute into the opening on the frame.
5. Reinstall Tray 4.
6. Reset the Paper Feeder Usage Log for the feeder with the new Rolls.
 - a. Enter Diagnostics.
 - b. Enter either 30-9 (for Tray 4 log).
 - c. Press [1] to view the log.
 - d. Use the Control Panel keys to scroll to each digit of the displayed log, and set each number to 0 (zero).
 - e. Press [1] to write the new number to the log.
 - f. Exit Diagnostics.

RRP 5.29 HCF Tray 5 (PL13.2)



SER236F

SER236F

RRP 5.29 HCF Tray 5 (PL13.2)

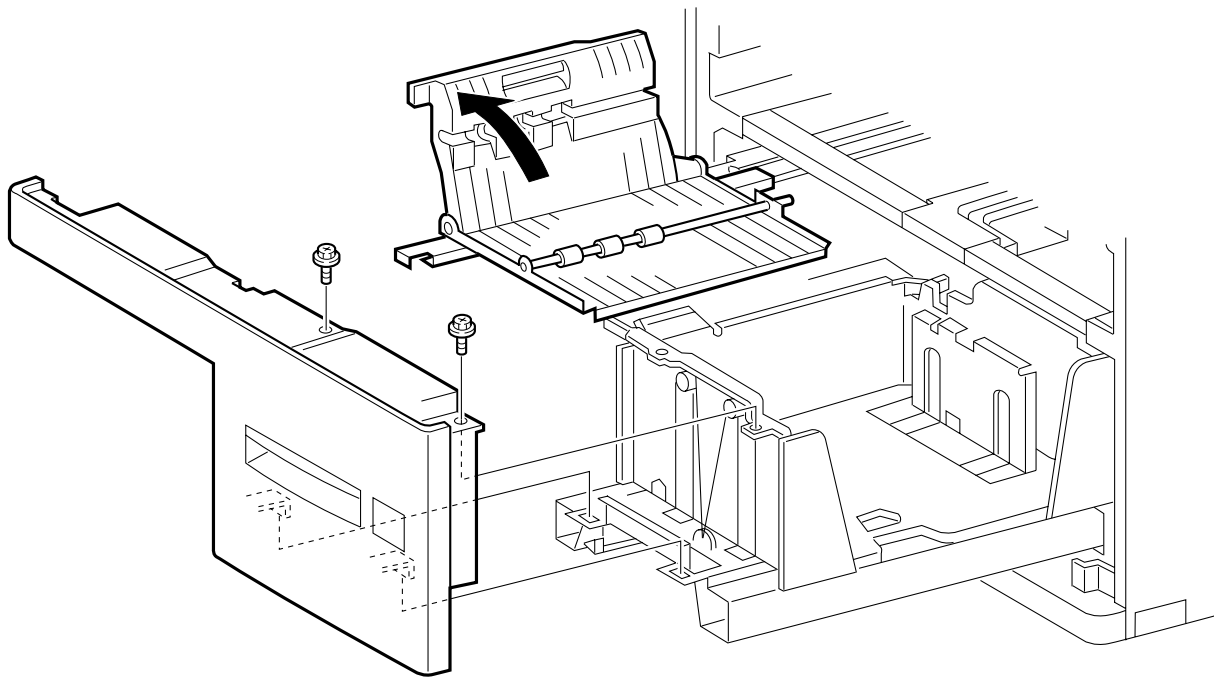
Removal

1. Remove Tray 3.
2. Slide Tray 5 out until it stops.
3. Use a flat screwdriver blade to press down on the latch spring that is located on the left Tray 5 guide rail, while you slide free the left side of the Tray.
4. Press and hold the two release buttons, that are located behind Tray 5, while you slide Tray 5 out of the HCF.

Replacement

1. Align the guide rails on both sides of Tray 5 with the guide rails on the HCF frame.
2. Push Tray 5 all the way into the HCF.
3. Reinstall Tray 3.

RRP 5.30 Tray 5 Front Cover (PL13.3)



SER237F

SER237F

RRP 5.30 Tray 5 Front Cover (PL13.3)

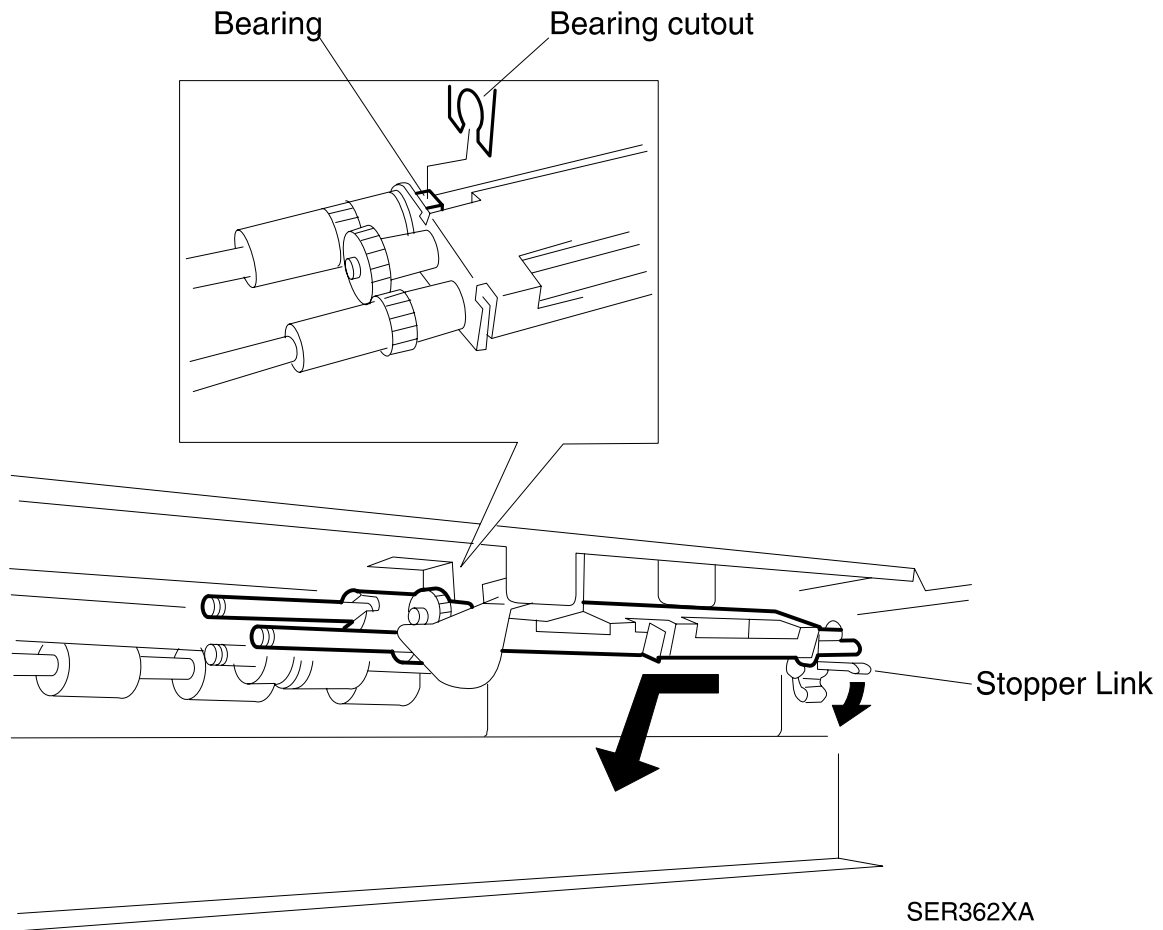
Removal

1. Slide Tray 5 out until it stops.
2. Open Tray 5 Upper Chute.
3. Remove the two screws securing the Tray 5 Front Cover to the Tray frame.
4. Lift up and out to remove the Front Cover.

Replacement

1. Insert the two latches located on the inside bottom of the Front Cover into the two slots in the Tray frame.
2. Press the Cover against the frame.
3. Use two screws to secure the Cover to the frame.
4. Close Tray 5 Upper Chute.
5. Slide Tray 5 back into the HCF.

RRP 5.31 Tray 5 Feeder Assembly (PL12.9)



SER362XA

RRP 5.31 Tray 5 Feeder Assembly (PL12.9)

Removal

1. Remove Tray 3 from the HCF.
2. Remove Tray 5 from the HCF (RRP 5.29).
3. Remove the HCF Rear Cover (RRP 5.2).
4. Remove Tray 5 Feed Clutch (RRP 5.13).
5. Remove the E ring securing the Feed Shaft Bearing to the HCF frame, and slide the Bearing off of the shaft.
6. Hold down the Stopper Link while you pull the Feeder Assembly to the front of the HCF frame.
7. Remove the Feeder Assembly from Feeder 5.

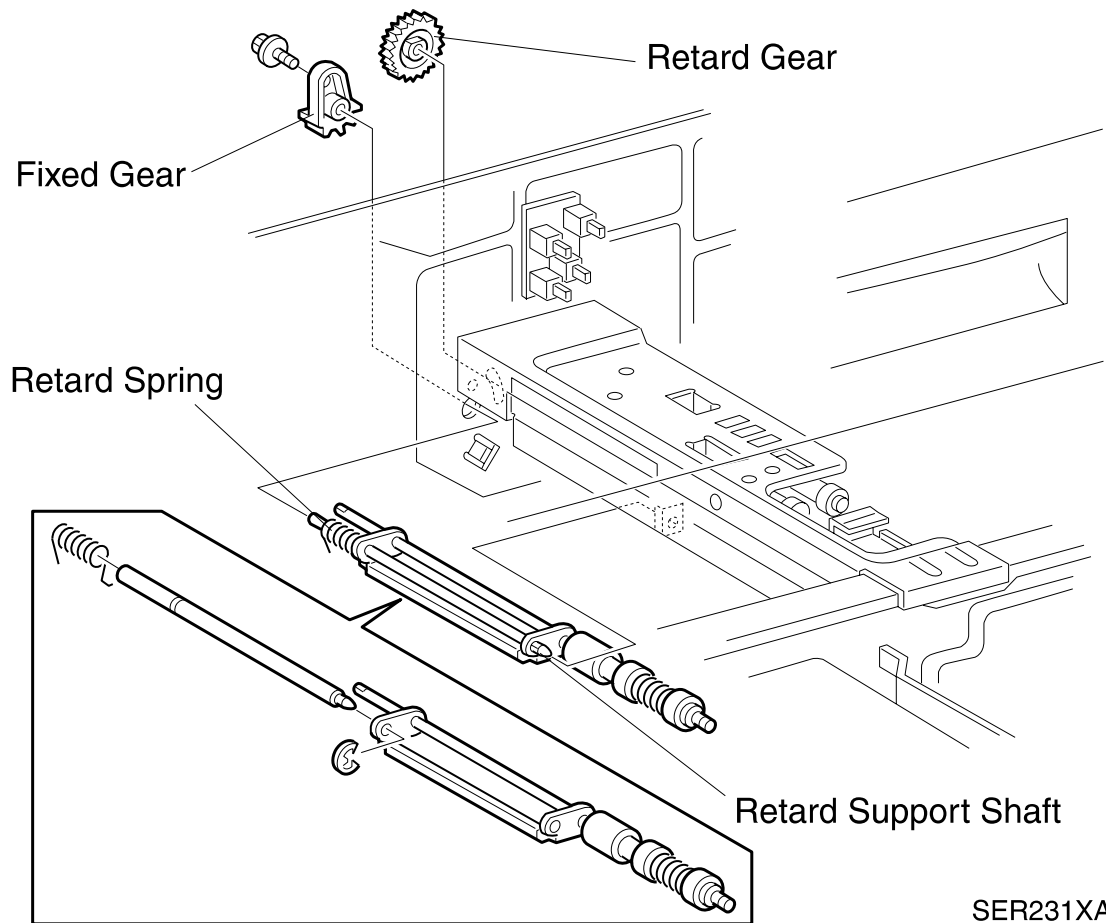
Replacement

1. Hold down the Stopper Link while you insert the end of the Feed Shaft into the opening in the rear of the HCF frame.
2. Slide the Bearing into the Bearing cutout (refer to the figure).
3. When both the Bearing is in place and the end of the Feed Shaft is through the opening in the rear of the frame, release the Stopper Link.

The Nudger Shaft should rest on top of the Stopper Link, and the Link should secure the Feeder Assembly in place on the frame.

4. Make sure the Paper Level Actuator tab on the Feeder is positioned in the center of the arms of the Paper Level Sensor.
5. Slide the Feed Shaft Bearing onto the Feed Shaft and press the Bearing into the cutout in the frame.
6. Use an E ring to secure the Bearing to the shaft.
7. Reinstall Tray 5 Feed Clutch (RRP 5.13).
8. Reinstall the Rear Cover (RRP 5.2).
9. Reinstall Tray 5 (RRP 5.29).
10. Reinstall Tray 3.

RRP 5.32 Tray 5 Retard Assembly (PL12.10)



SER231XA

RRP 5.32 Tray 5 Retard Assembly (PL12.10)

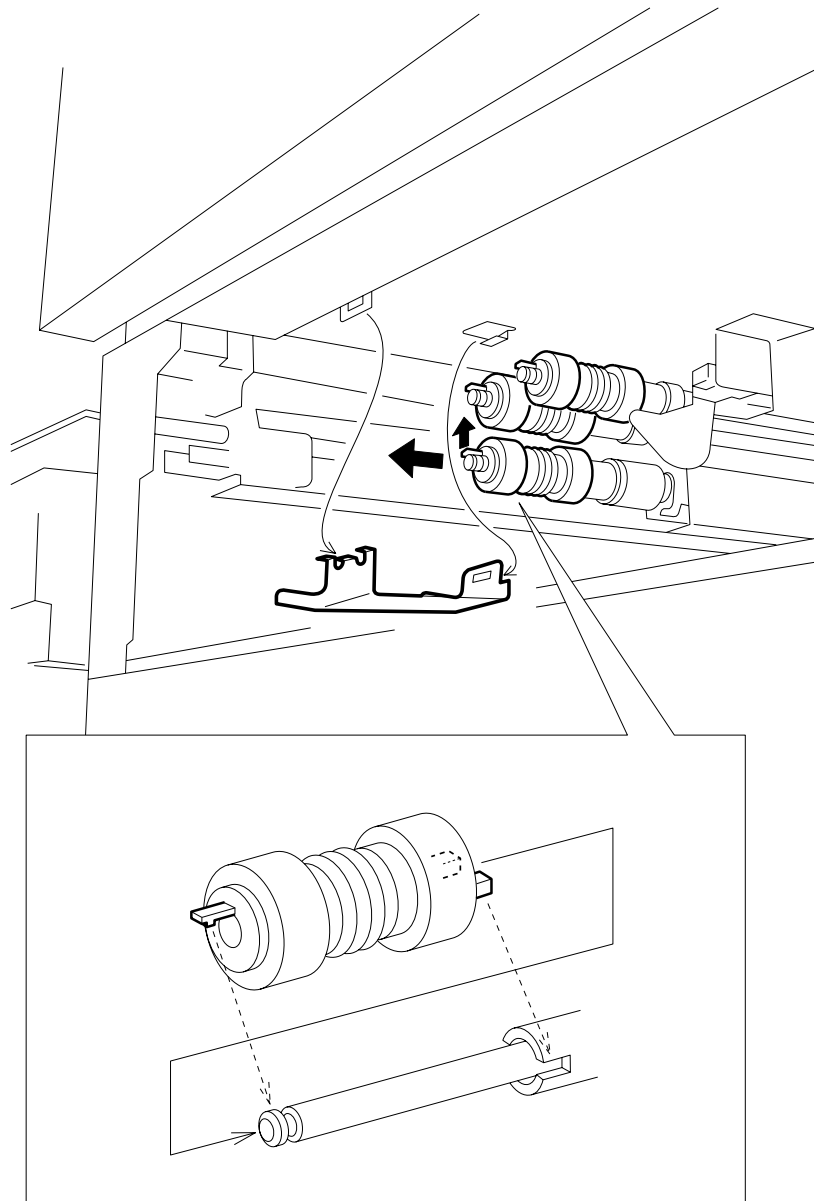
Removal

1. Remove Tray 3 from the HCF.
2. Remove Tray 5 from the HCF (RRP 5.29).
3. Remove the HCF Rear Cover (RRP 5.2).
4. Remove the screw securing the Fixed Gear to the HCF frame, and remove the Gear.
5. Slide the Retard Gear off of the Retard Shaft.
6. Slide the Retard Assembly to the rear of the HCF in order to release the front of the Retard Support Shaft from the cutout in the HCF frame.
7. Slide the Retard Assembly to the front of the HCF, and remove the Assembly.

Replacement

1. Position the rear of the Retard Assembly near the opening in the rear of the HCF frame.
2. Press and hold the arm of the Retard Spring against the shaft.
3. Slide the rear of the Retard Shaft and Retard Support Shaft through the two openings in the rear of the HCF frame.
4. Slide the Retard Assembly to the front and insert the front of the Retard Support Shaft into the cutout in the HCF frame.
5. Release the arm of the Retard Spring, and make sure it rests against the metal tab sticking out from the HCF frame.
6. Slide the Retard Gear onto the Retard Shaft.
7. Reinstall the Fixed Gear over the Retard Support Shaft, and use one screw to secure Gear to the frame.
8. Reinstall the HCF Rear Cover (RRP 5.2).
9. Reinstall Tray 5 (RRP 5.29).
10. Reinstall Tray 3.

RRP 5.33 Tray 5 Feed, Nudger, and Retard Rolls (PL12.9 & 12.10)



SER309FA

SER309FA

RRP 5.33 Tray 5 Feed, Nudger, and Retard Rolls (PL12.9 & 12.10)

NOTE

Replace the Feeder, Nudger, and Retard Rolls as a unit.

Removal

1. Remove the Tray 5.
2. Use a flat blade screwdriver to unhook the front of the Upper Chute, and remove the Chute.
3. Pull out on the Retard Roll latch and slide the Retard Roll off of the shaft.
4. Repeat step 3 for the Nudger and Feeder Rolls.

Replacement

1. Position the Roll with the latch end facing out, and slide the Roll onto the Feed shaft.
2. Rotate the Roll so the end tabs line up with the slots on the shaft One Way Clutch (PL12.9.6) and push the Roll down the shaft until the latch locks the Roll into place.
3. Repeat steps 1 and 2 for the Nudger and Retard Rolls.
4. Reinstall the Chute by sliding the opening in the rear of the Chute into the tab on the frame, then hooking the tab at the front of the Chute into the opening on the frame.
5. Reinstall Tray 5.
6. Reset the Paper Feeder Usage Log for the feeder with the new Rolls.
 - a. Enter Diagnostics.
 - b. Enter either 30-10 (for Tray 5 log).
 - c. Press [1] to view the log.
 - d. Use the Control Panel keys to scroll to each digit of the displayed log, and set each number to 0 (zero).
 - e. Press [1] to write the new number to the log.
 - f. Exit Diagnostics.

Section 6 - Locating P/J Connectors

Use the table and map in this section to locate specific P/J connectors within the HCF.

To find the location of a P/J:

1. Locate the P/J connector number in the first column of the table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. Go to the map (M1) number and locate item number (5).

P/J Location Table

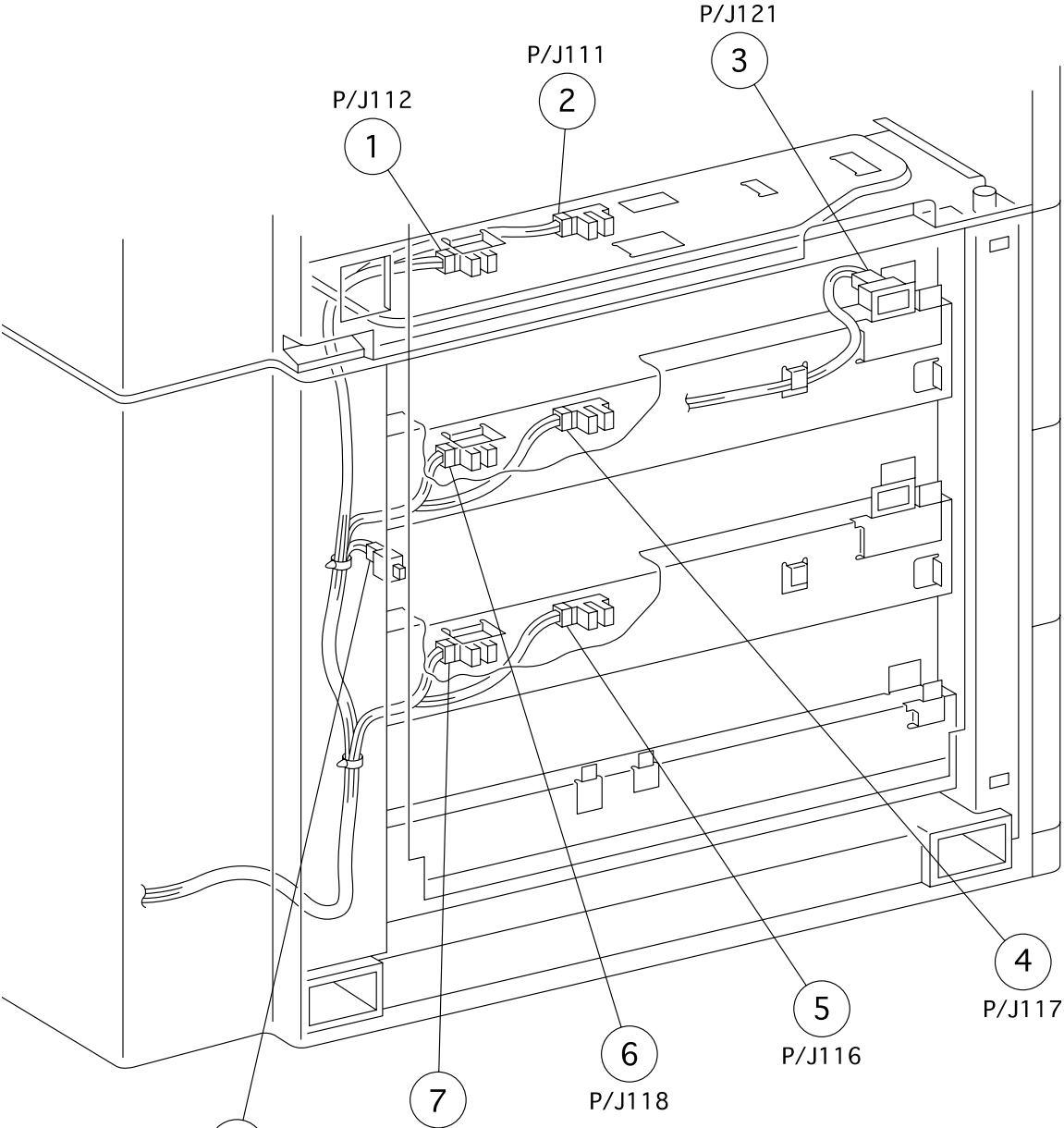
P/J	Map & Number	Connected to...	Other end connected to...
110	M2-2 & M4-1	Size 3 Sensor	P483 HCF PWB
111	M1-2 & M3-4	No Paper 3 Sensor	P483 HCF PWB
112	M1-1 & M3-3	Level 3 Sensor	P483 HCF PWB
114	M1-8 & M3-9	Left Cover Interlock Switch	P482 HCF PWB
115	M2-1 & M4-10	Size 4 Sensor	P483 HCF PWB
116	M1-5 & M3-2	No Paper 5 Sensor	P484 HCF PWB
117	M1-4 & M3-7	No Paper 4 Sensor	P483 HCF PWB
118	M1-6 & M3-8	Level 4 Sensor	P483 HCF PWB
119	M1-7 & M3-1	Level 5 Sensor	P484 HCF PWB
120	M2-17 & M4-16	Size 5 Sensor	P484 HCF PWB

P/J	Map & Number	Connected to...	Other end connected to...
121	M1-3 & M3-6	Take Away Sensor 3	P482 HCF PWB
126	M3-5	Take Away Sensor 4	P486 HCF PWB
211	M2-6 & M4-3	Feed Clutch 3	P482 HCF PWB
212	M2-7 & M4-4	Lift Up Motor 3	P482 HCF PWB
213	M2-8 & M4-7	Feed Clutch 4	P482 HCF PWB
214	M2-9 & M4-9	Lift Up Motor 4	P482 HCF PWB
215	M2-10 & M4-17	Feed Clutch 5	P485 HCF PWB
216	M2-11 & M4-15	Lift Up Motor 5	P485 HCF PWB
217	M2-4 & M4-8	Feed Motor	P217 HCF PWB
480	M2-16 & M4-5	HCF PWB	P406 MCU PWB
481	M2-3 & M4-6	HCF PWB	P406 MCU PWB

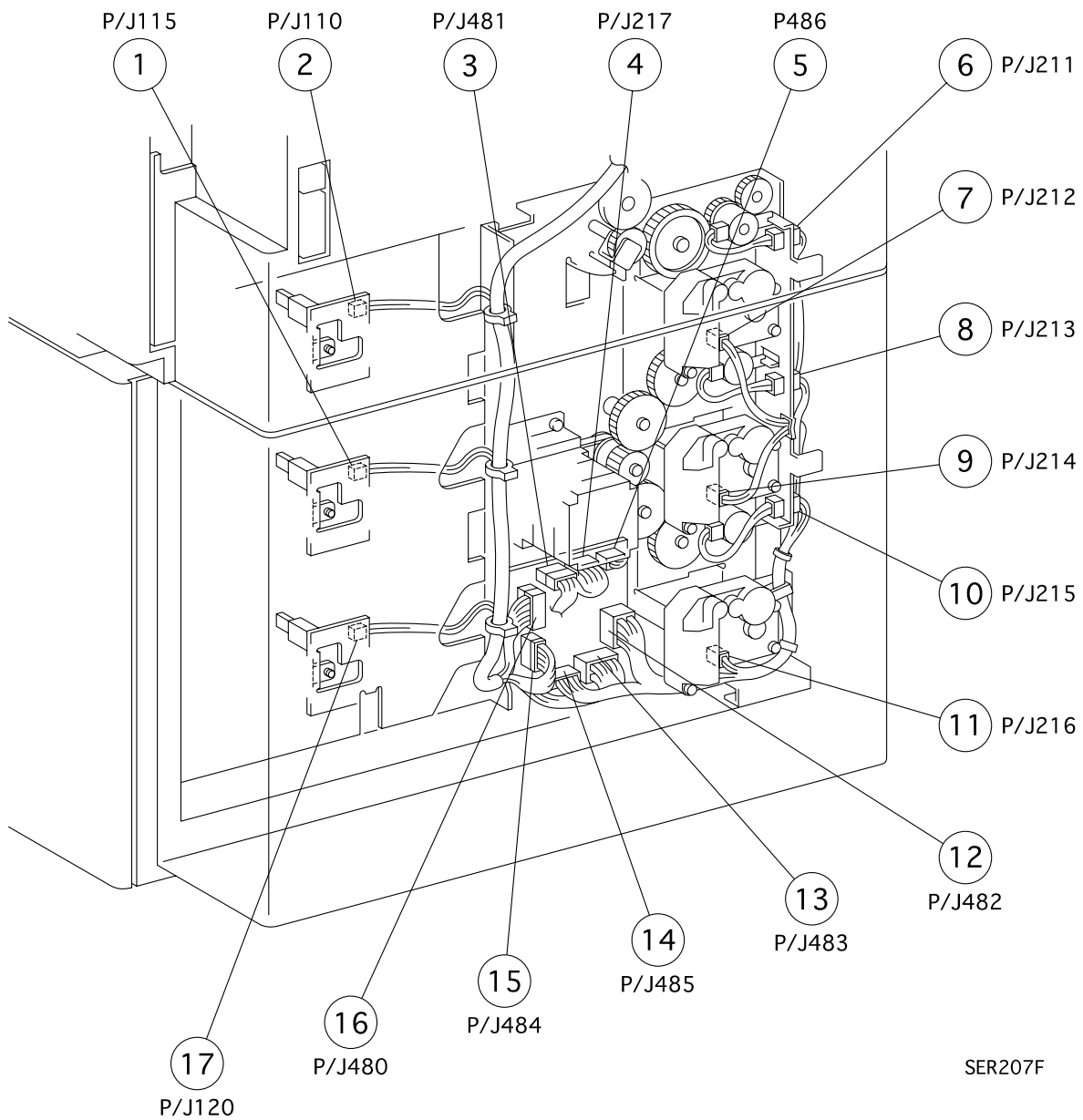
P/J Location Table continued

P/J	Map & Number	Connected to...	Other end connected to...
482	M2-12 & M4-12	HCF PWB	P114 Left Cover Interlock Switch P121 Take Away Sensor 3 P211 Feed Clutch 3 P212 Lift Up Motor 3 P213 Feed Clutch 4 P214 Lift Up Motor 4
483	M2-13 & M4-14	HCF PWB	P110 Size 3 Sensor P111 No Paper 3 Sensor P112 Level 3 Sensor P115 Size 4 Sensor P117 No Paper 4 Sensor P118 Level 4 Sensor
484	M2-15 & M4-2	HCF PWB	P116 No Paper 5 Sensor P119 Level 5 Sensor P120 Size 5 Sensor
485	M2-14 & M4-14	HCF PWB	P215 Feed Clutch 5 P216 Lift Up Motor 5
486	M2-5 & M4-11	HCF PWB	P126 Take Away Sensor 4
613	M4-18	P/J480 & P/J481 HCF PWB	P/J406 MCU PWB

P/J Location Map 1

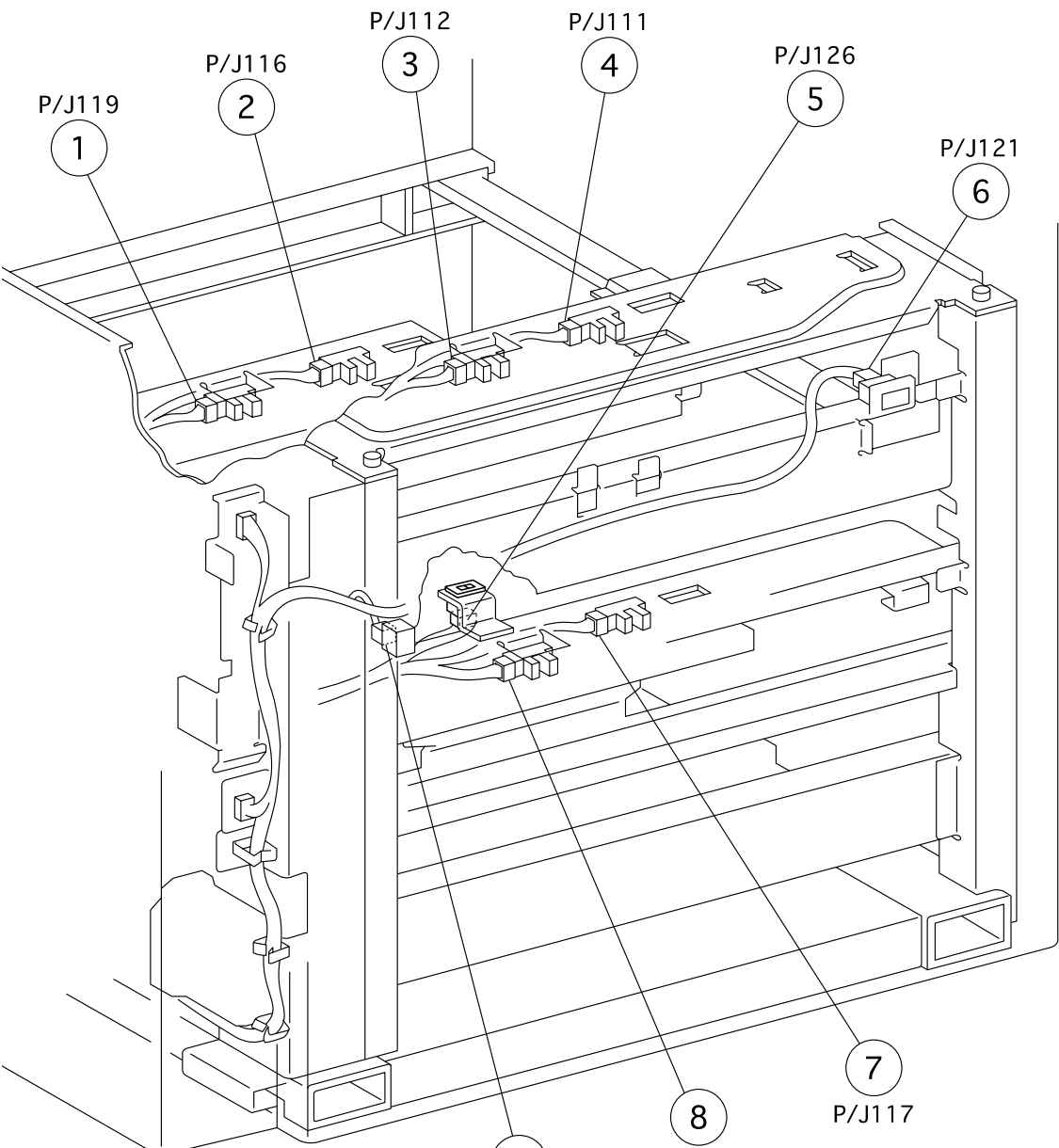


P/J Location Map 2

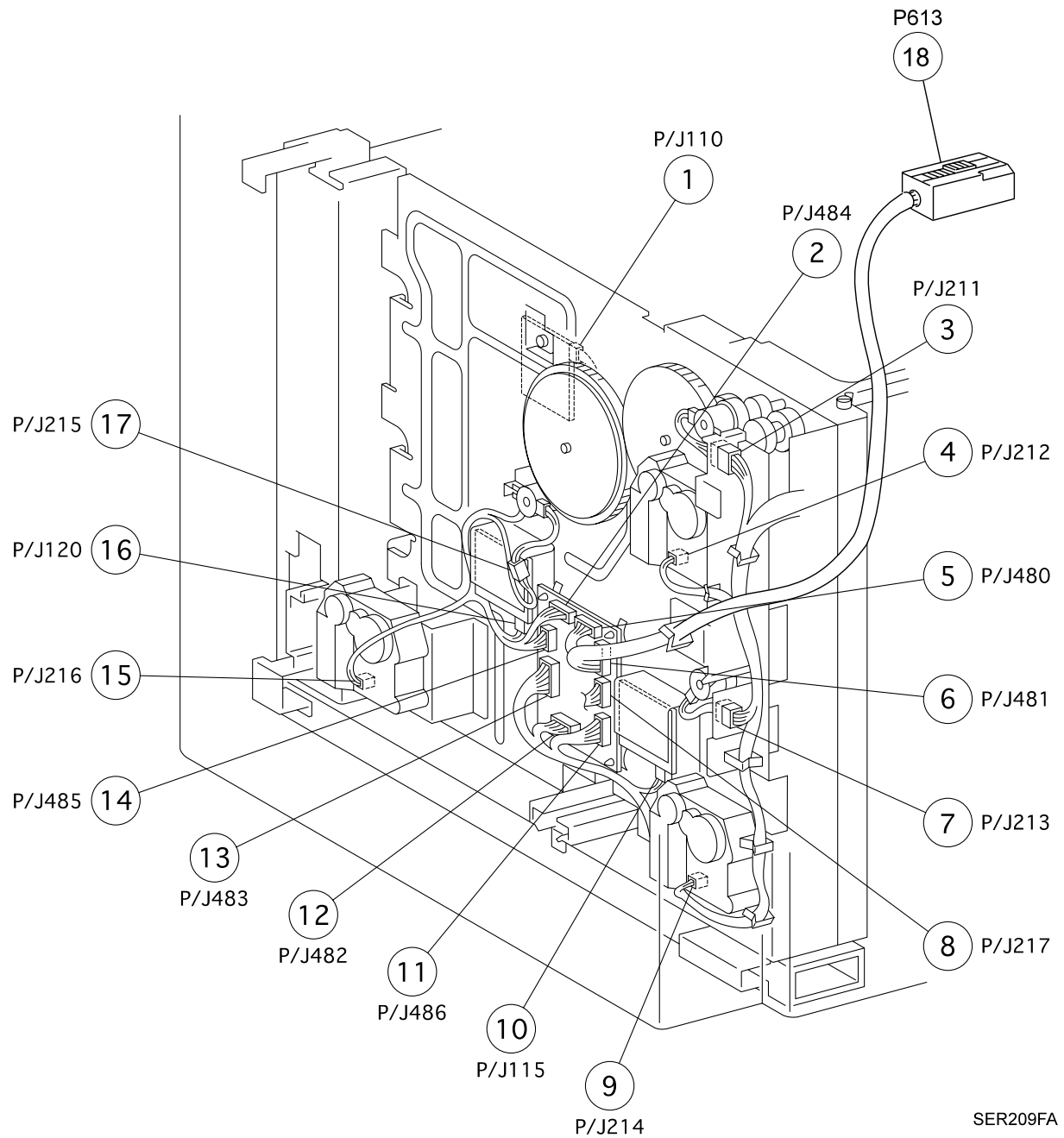


SER207F

P/J Location Map 3



P/J Location Map 4



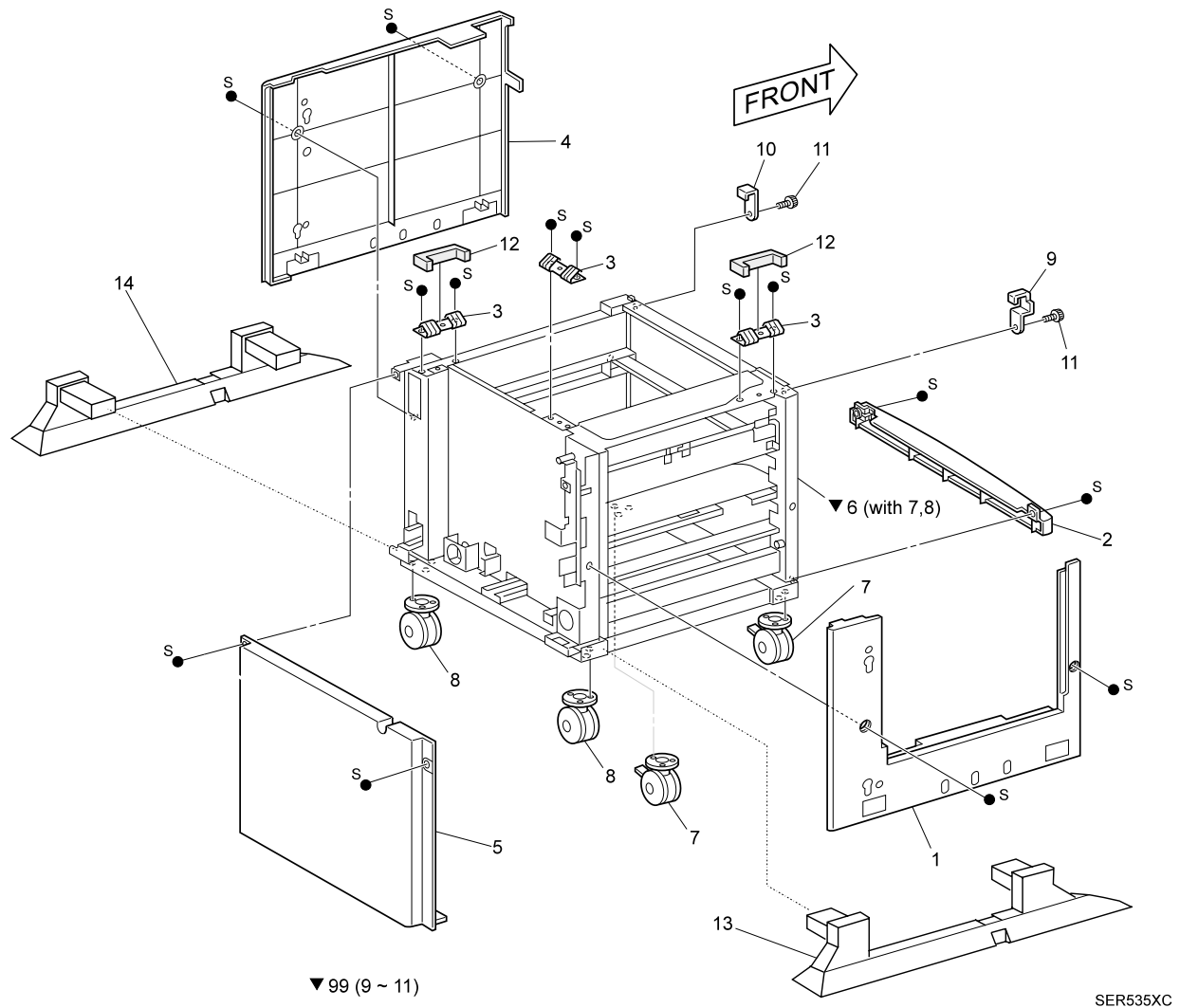
SER209FA

Section 7 - PL12 & PL13 High Capacity Feeder Parts List

Using the Parts List

1. The numbers shown in each illustration correspond to the parts list number for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL3.12 means the part is item 12 of parts list 3.
3. The capital letters “C”, “E”, “KL”, and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle in an illustration indicates the item is part of an assembly.
5. The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.
6. The symbol \$ following a part name indicates the part is an FX Recommended Part and is constantly stocked and readily available. Other parts may be stocked according to the needs of each individual OEM client.
7. An asterisk * following a part name indicates the page contains a note about this part.
8. The notation “**J1<>J2 and P2**” is attached to a wire harness. It indicates that connector jack 1 is attached to one end of the wire harness and connector jack 2 is attached to the other end that is plugged into plug 2.
9. An RRP number appears at the end of a part line if the technical manual contains a removal and replacement procedure for that part or module.

PL12.1 Cover and Frame

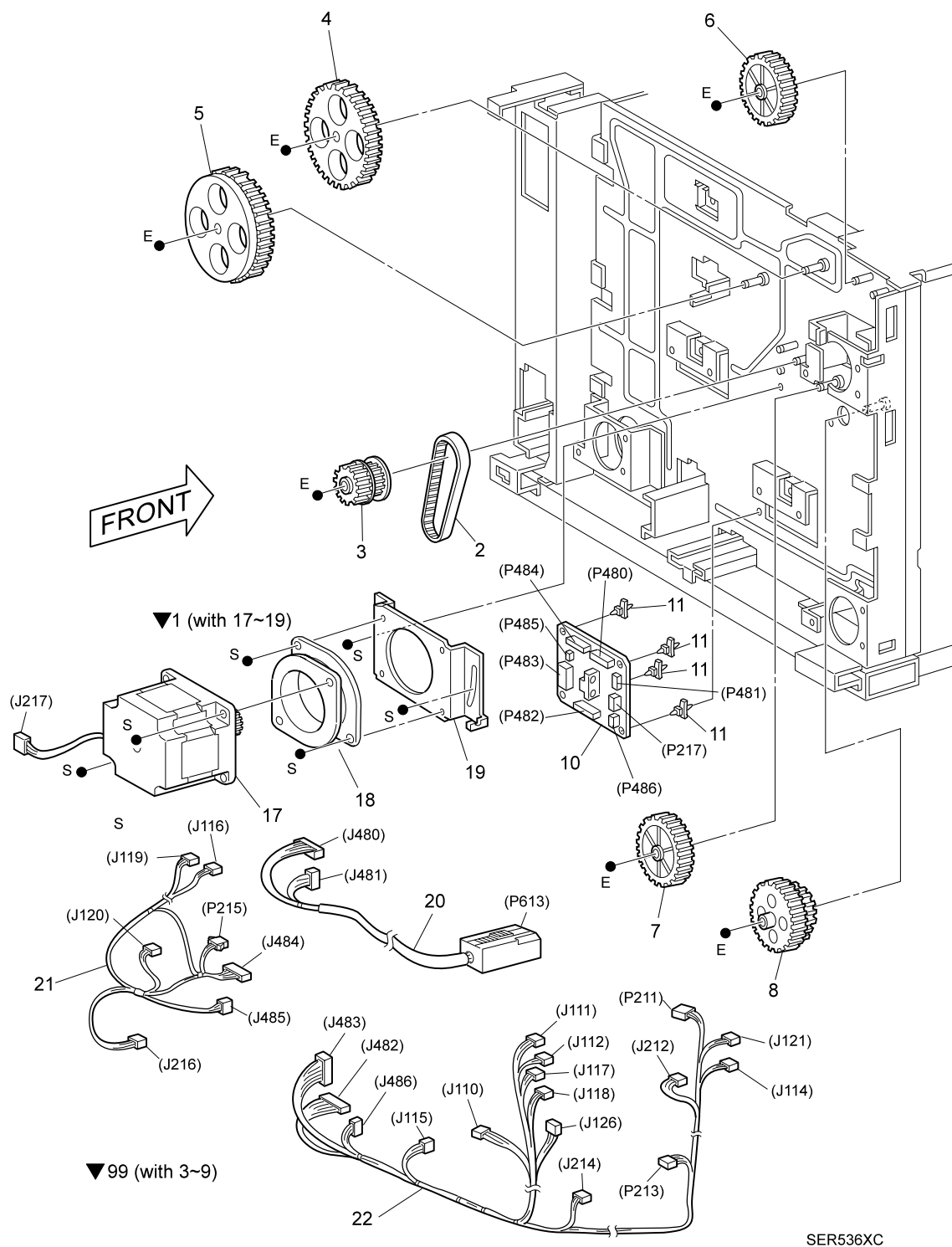


SER535XC

PL12.1 Cover and Frame

1. COVER - LEFT, HCF	P/N 865048E37272
2. COVER FRONT BTM (AB).....	P/N 865002E68570
3. SPRING - GROUND.....	N/A
4. COVER - RIGHT, HCF.....	P/N 865048E37281
5. COVER - REAR, CAB OEM.....	P/N 865048E37260
6. FRAME ASSEMBLY - CABINET, HCF (with 7 and 8).....	N/A
7. CASTER - S (2).....	P/N 865017E91970
8. CASTER (2)	P/N 865017E91980
9. BRACKET-DOCKING, LEFT.....	N/A
10. BRACKET-DOCKING, RIGHT.....	N/A
11. SCREW.....	N/A
12. SPRING CUSHION	N/A
13. HCF STABILIZER LEG (LEFT).....	P/N 865017K91951
14. HCF STABILIZER LEG (RIGHT)	P/N 865017K91961
15. KIT HCF MOUNTING (with 9 ~ 11)	P/N 865600K65520

PL12.2 Drive, HCF PWB, and Harness



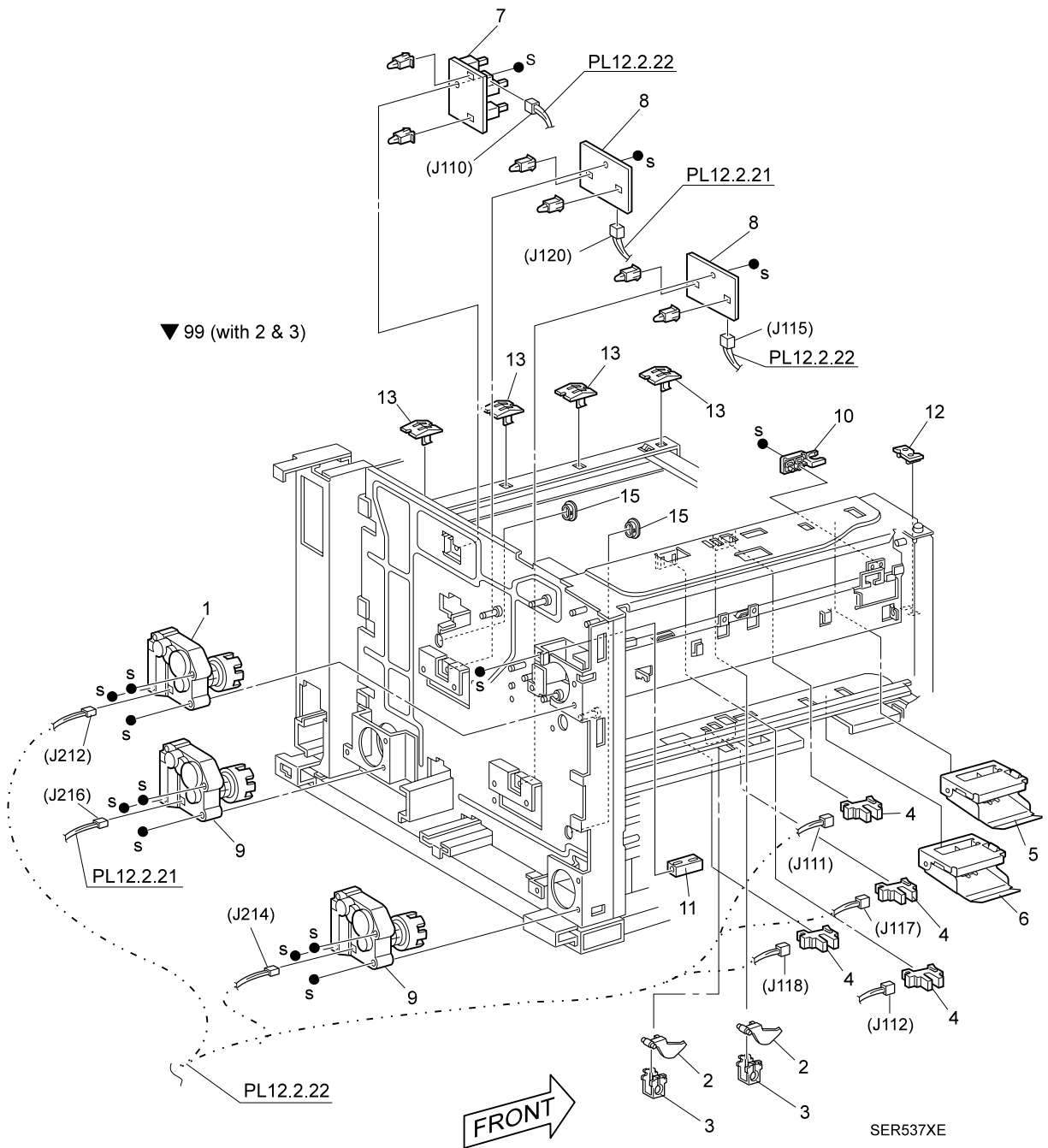
SER536XC

SER536XC

PL12.2 Drive, HCF PWB, and Harness

1. HCF FEED MOTOR (with 17 ~ 19) P/N 865127K19260
2. HCF DRIVE BELT P/N 865423W47353
3. HCF DRIVE PULLEY N/A
4. HCF DRIVE TRANS. GEAR 1 N/A
5. HCF DRIVE TRANS. GEAR 2 N/A
6. TRAY 3 DRIVE GEAR..... N/A
7. TRAY 4 DRIVE GEAR 1..... N/A
8. TRAY 4 DRIVE GEAR 2..... N/A
9. N/A
10. HCF PWB P/N 865160K34391
11. HCF PWB HOOK N/A
12. N/A
13. N/A
14. N/A
15. N/A
16. N/A
17. MOTOR ASSEMBLY FEED N/A
18. DAMPER..... N/A
19. BRACKET MOTOR N/A
20. HCF CONNECTOR (P613 <> J480/J481)..... N/A
21. TRAY 5 HARNESS (J484 <> J120/J116/J119, J485 <> P215/J216) N/A
22. TRAY 3/4 HARNESS
(J482 <> J121/J114/P211/J212/J214/P213, J483 <>
J111/J112/J110/J115/J117/J118, J486 <> J126)..... N/A
23. KIT HCF DRIVE GEAR (with 3 ~ 9) P/N 865600K60990

PL12.3 Tray Interface 1

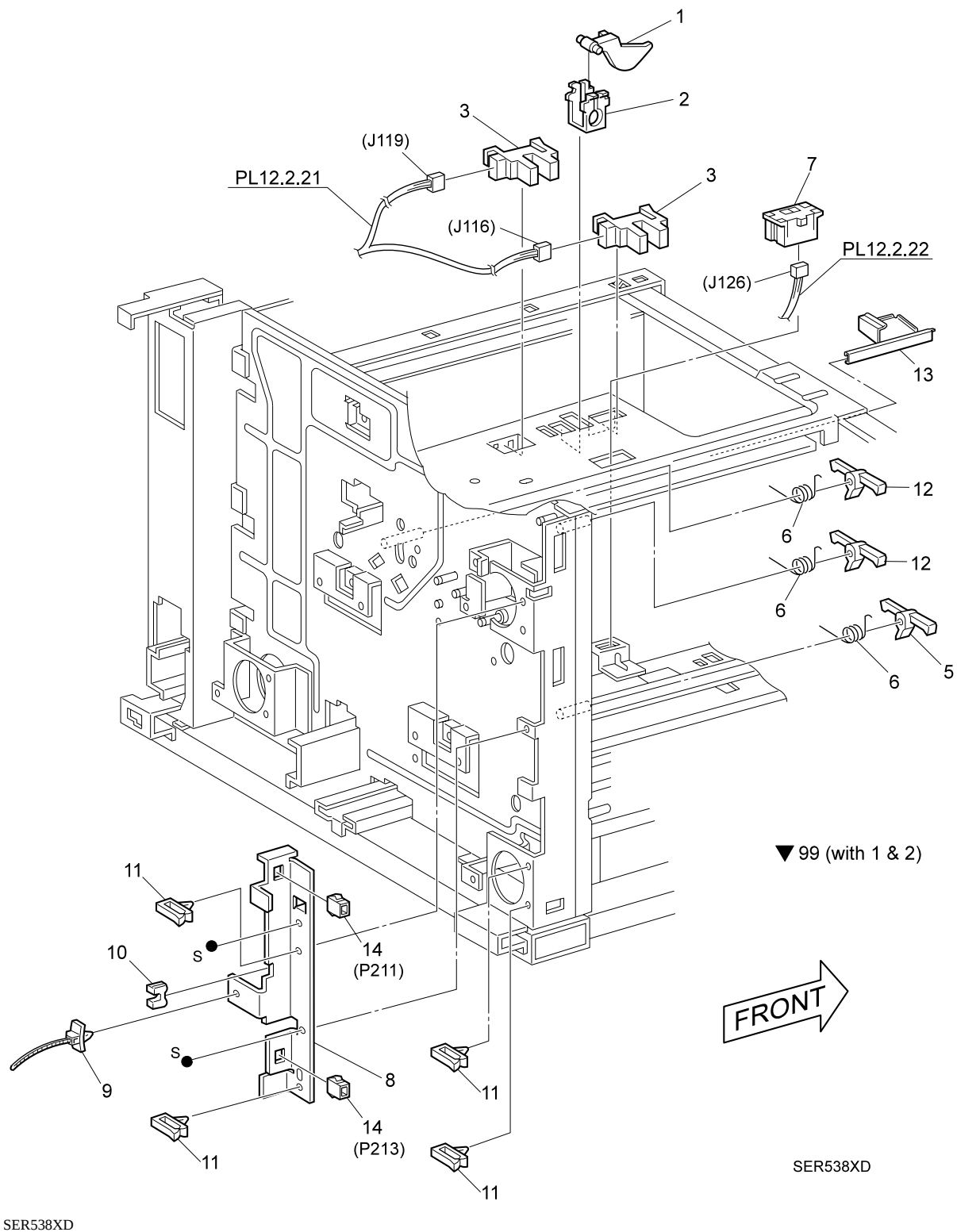


SER537XE

PL12.3 Tray Interface 1

1. BOTTOM PLATE LIFT UP DRIVE ASSEMBLY	N/A
2. TRAY NO PAPER ACTUATOR (Trays 3 and 4)	N/A
3. TRAY NO PAPER ACTUATOR BRACKET (Trays 3 and 4).....	N/A
4. TRAY NO PAPER SENSOR (Trays 3 and 4)	N/A
5. UPPER CHUTE TRAY 3	N/A
6. UPPER CHUTE TRAY 4	N/A
7. TRAY 3 PAPER SIZE SENSOR PWB	P/N 865110K07040
8. TRAY 4/5 PAPER SIZE SENSOR PWB (Trays 4 and 5).....	P/N 865110K98760
9. LIFT UP MOTOR (Trays 4 and 5).....	P/N 865127K19080
10. TRAY 3 STOPPER FRONT	N/A
11. TRAY 3 STOPPER REAR	N/A
12. TRAY 3 SLIDE PAD LEFT	N/A
13. TRAY 3 SLIDE PAD RIGHT	N/A
14. N/A	
15. TRAY 4/5 END GUIDE	N/A
16. KIT ACTUATOR SENSOR ASSY (with 2 and 3)	N/A

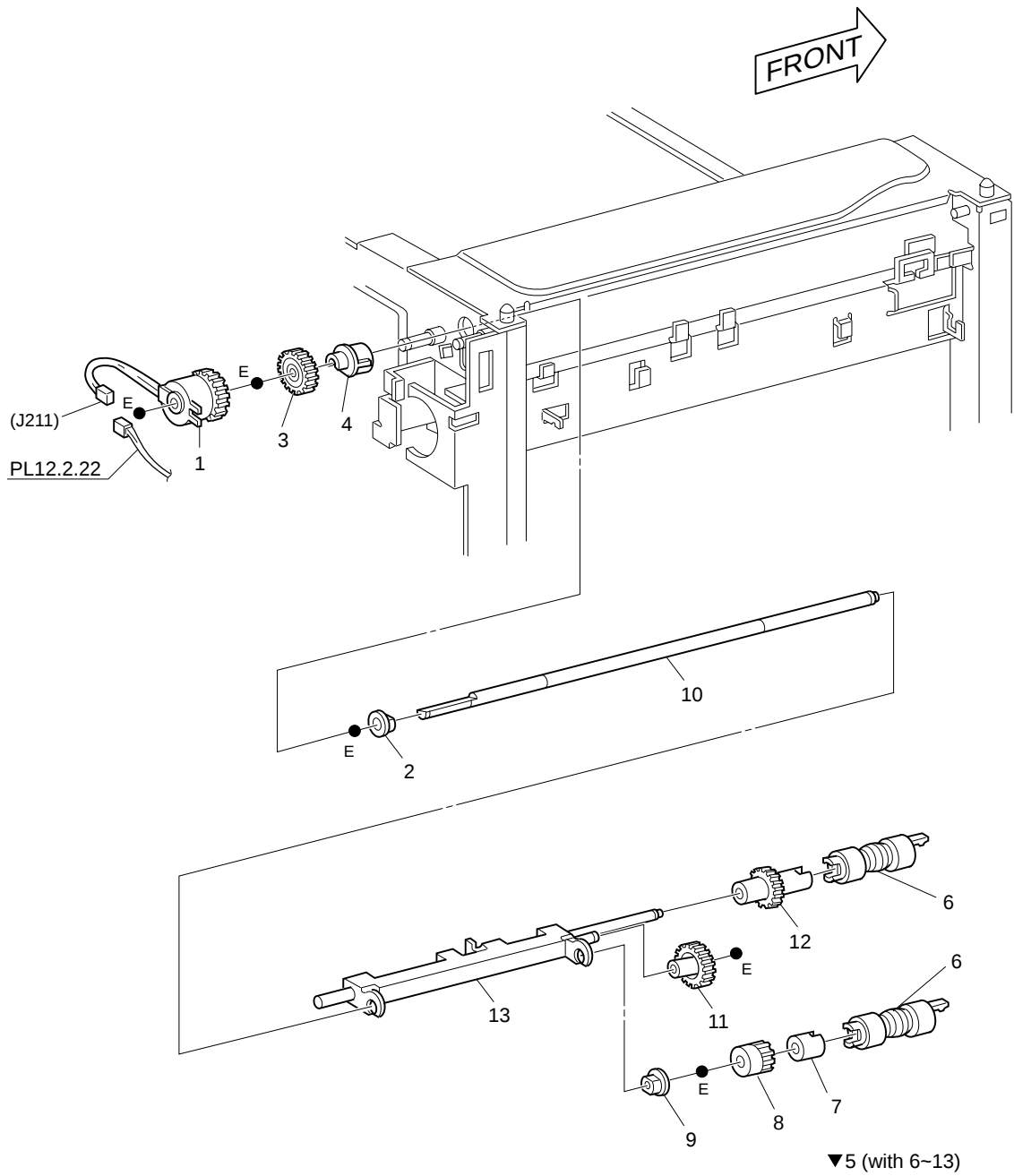
PL12.4 Tray Interface 2



PL12.4 Tray Interface 2

1. TRAY NO PAPER ACTUATOR (Tray 5).....	N/A
2. TRAY NO PAPER ACTUATOR BRACKET (Tray 5).....	N/A
3. TRAY NO PAPER SENSOR (Tray 5).....	N/A
4. N/A	
5. STOPPER LINK (Tray 4).....	N/A
6. STOPPER LINK SPRING	N/A
7. TRAY 5 FEED SENSOR.....	N/A
8. BRACKET - STOPPER	N/A
9. HARNESS CLAMP 1	N/A
10. HARNESS CLAMP 2	N/A
11. HARNESS CLAMP 3	N/A
12. STOPPER LINK (Trays 3 & 5)	N/A
13. UPPER CHUTE (Tray 5).....	N/A
14. CONNECTOR	N/A
15. KIT ACTUATOR SENSOR ASSY (with 1 and 2)	N/A

PL12.5 Paper Pick Up - Tray 3



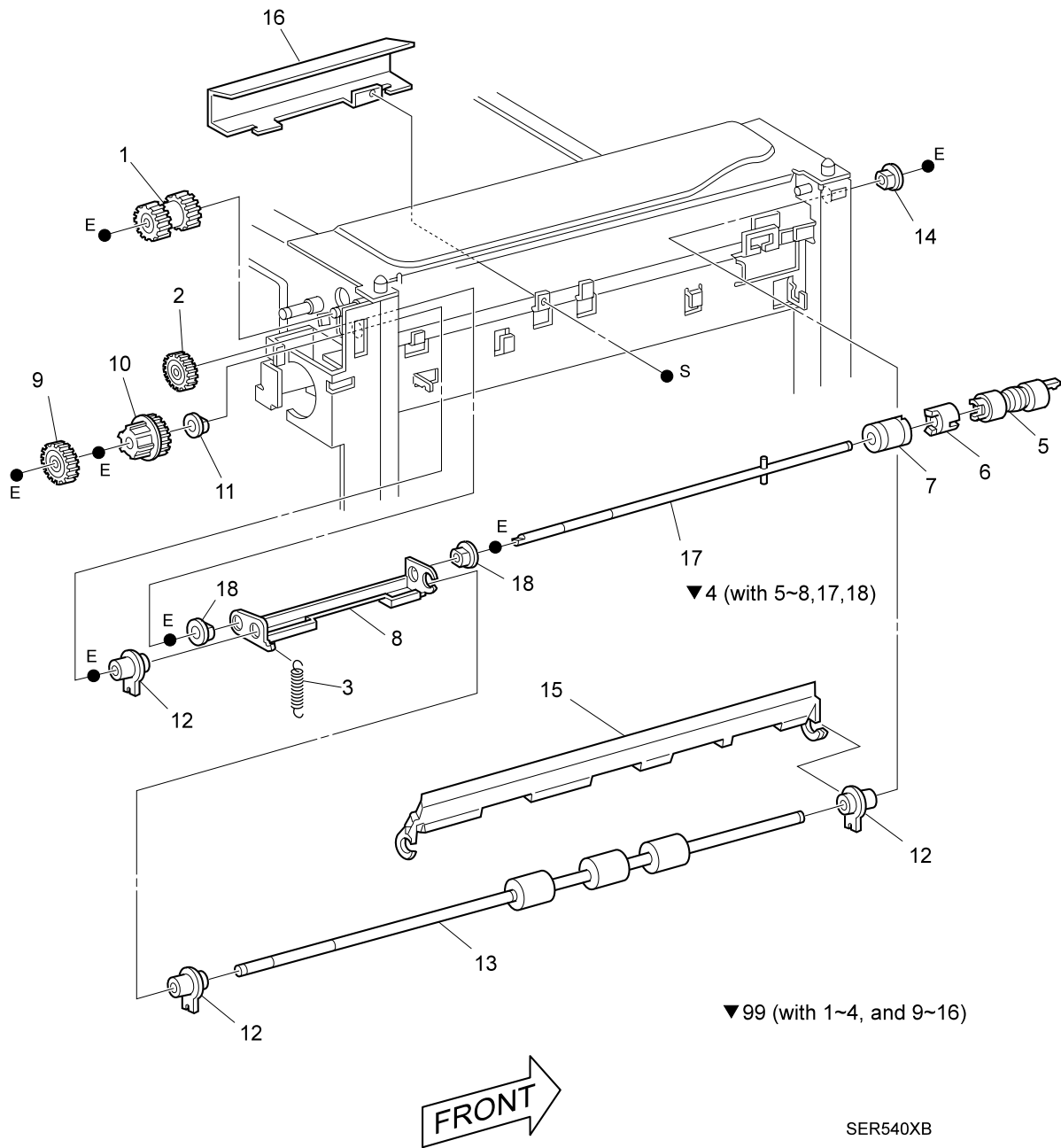
SER539FB

SER539FB

PL12.5 Paper Pick Up - Tray 3

1. FEED CLUTCH (with harness).....	N/A
2. BEARING.....	N/A
3. FEED GEAR.....	N/A
4. BEARING FEEDER.....	N/A
5. FEEDER ASSEMBLY (with 6 ~ 13)	N/A
6. FEED/NUDGER ROLLER	N/A
7. ONE WAY CLUTCH FRONT	N/A
8. FEED CLUTCH GEAR.....	N/A
9. FEED BEARING.....	N/A
10. FEED SHAFT	N/A
11. FEED IDLER GEAR.....	N/A
12. NUDGER GEAR.....	N/A
13. NUDGER SUPPORT ASSEMBLY.....	N/A
99. KIT TRAY 3 CLUTCH	P/N 865600K65530

PL12.6 Retard and Take Away Roll - Tray 3

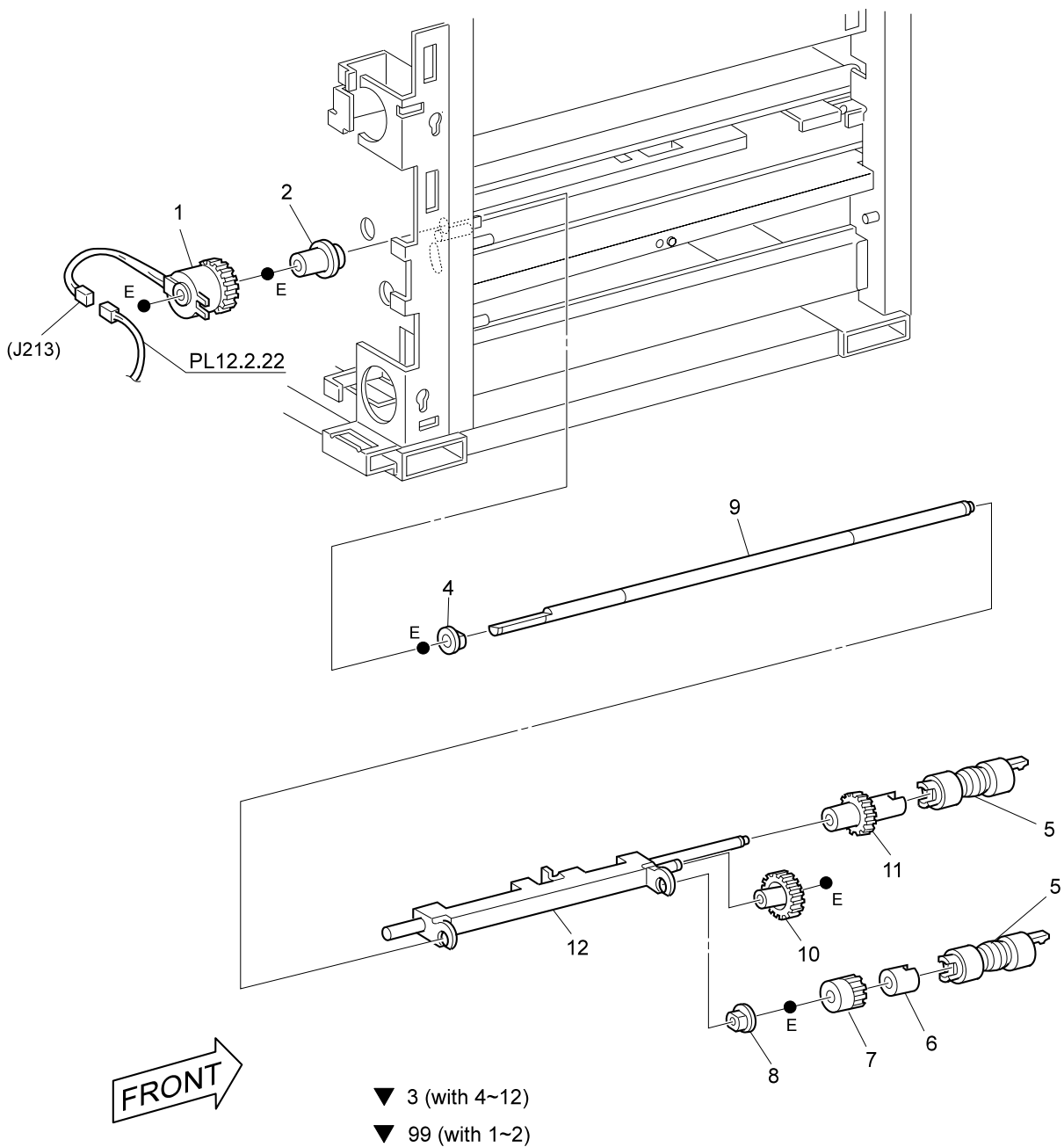


SER540XB

PL12.6 Retard and Take Away Roll - Tray 3

1. DRIVE TRANSMISSION GEAR.....	N/A
2. RETARD GEAR.....	N/A
3. RETARD SPRING.....	N/A
4. RETARD ASSEMBLY (with 5 ~ 8, 17, and 18)	P/N 865050K29933
5. RETARD ROLLER	N/A
6. RETARD SPACER	N/A
7. FRICTION CLUTCH	N/A
8. RETARD SHAFT ASSEMBLY.....	N/A
9. TAKE AWAY GEAR.....	N/A
10. FIXED GEAR.....	N/A
11. TAKE AWAY BEARING REAR	N/A
12. COLLARED BEARING	N/A
13. TAKE AWAY ROLLER	N/A
14. TAKE AWAY BEARING FRONT	N/A
15. TAKE AWAY CHUTE UPPER	N/A
16. FEED IN CHUTE	N/A
17. RETARD SHAFT ASSEMBLY.....	N/A
18. RETARD BEARING	N/A
98. KIT GEAR TAKE AWAY TRAY 3.....	P/N 865600K66810
19. KIT RETARD, TAKEAWAY (with 1~ 4 and 9~16).....	P/N 865600K65540

PL12.7 Paper Pick Up - Tray 4



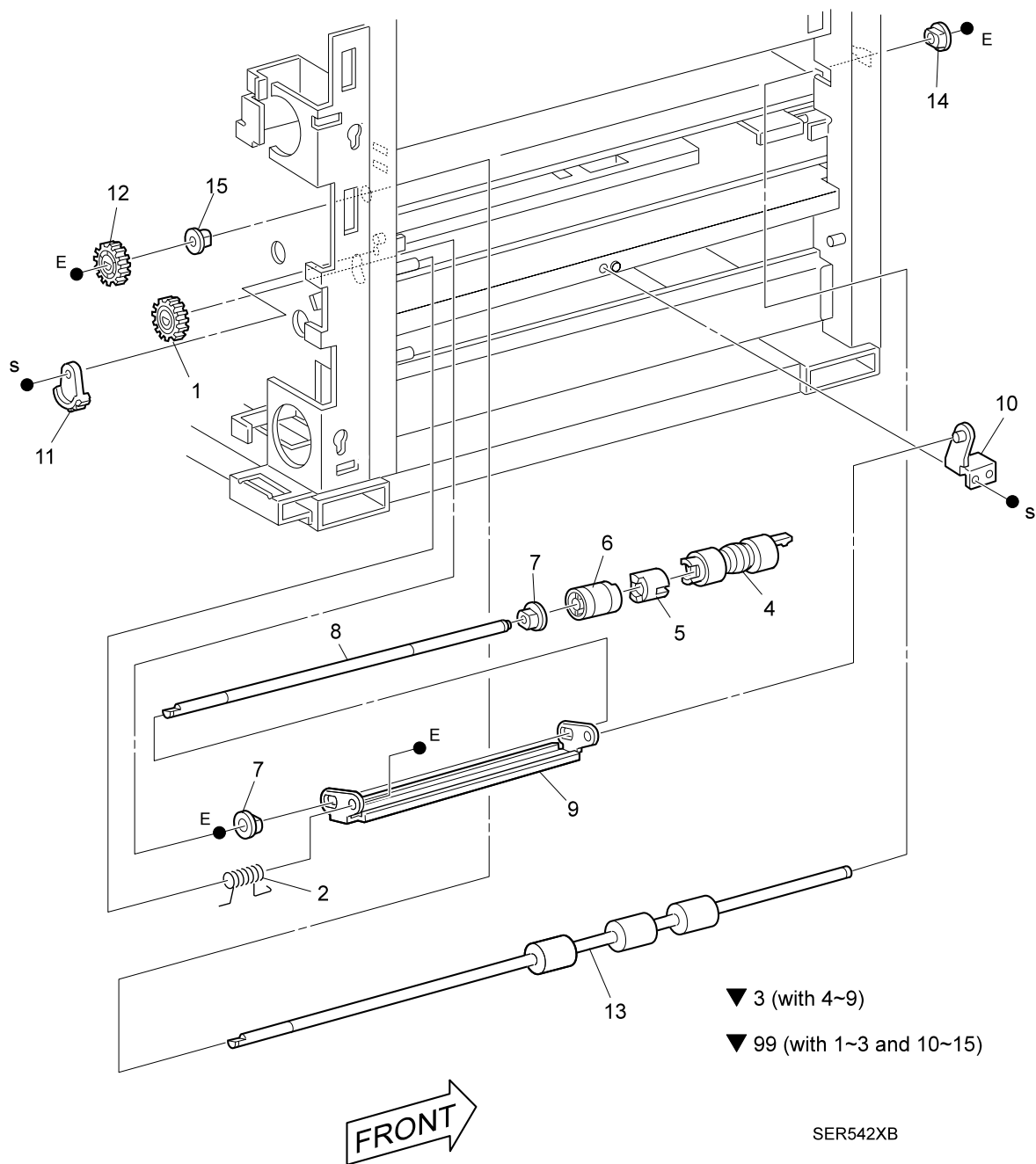
SER541XD

SER541XD

PL12.7 Paper Pick Up - Tray 4

1. FEED CLUTCH (with harness).....	N/A
2. FEED CLUTCH BEARING.....	N/A
3. FEEDER ASSEMBLY (with 4 ~ 12)	P/N 865050K29943
4. BEARING.....	N/A
5. FEED/NUDGER ROLLER	N/A
6. ONE WAY CLUTCH FRONT	N/A
7. FEED CLUTCH GEAR.....	N/A
8. FEED BEARING.....	N/A
9. FEED SHAFT	N/A
10. FEED IDLER GEAR.....	N/A
11. NUDGER GEAR.....	N/A
12. NUDGER SUPPORT ASSEMBLY.....	N/A
13. KIT PAPER PICKUP (1~2).....	P/N 865600K65550

PL12.8 Retard and Take Away Roll - Tray 4

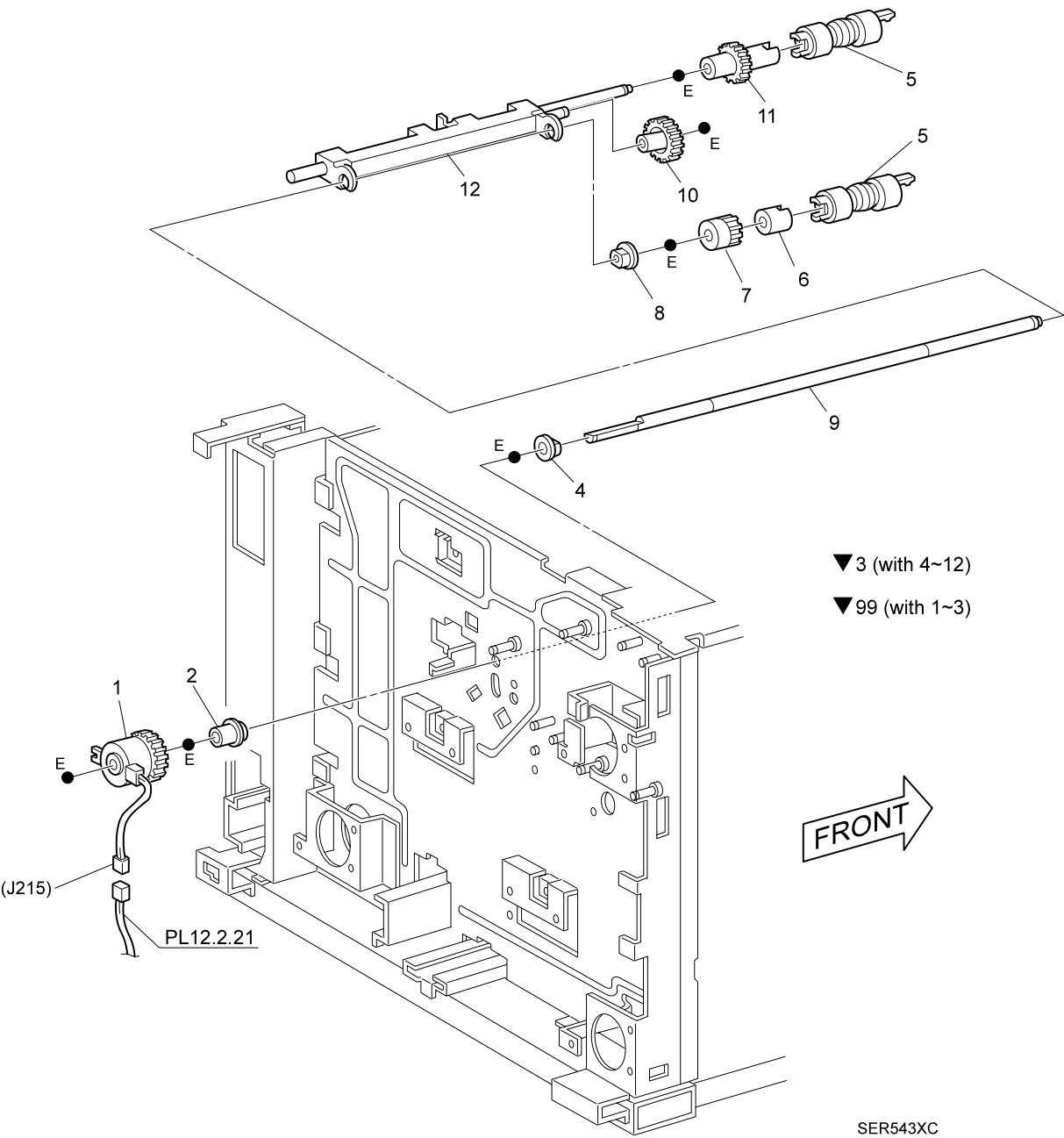


SER542XB

PL12.8 Retard and Take Away Roll - Tray 4

1. RETARD GEAR	N/A
2. RETARD SPRING TRAY 4	N/A
3. RETARD ASSEMBLY (with 4 ~ 9)	P/N 865050K29954
4. RETARD ROLLER	N/A
5. RETARD SPACER	N/A
6. FRICTION CLUTCH	N/A
7. RETARD BEARING	N/A
8. RETARD SHAFT ASSEMBLY TRAY 4	N/A
9. RETARD ASSEMBLY BRACKET	N/A
10. SUPPORT RETARD	N/A
11. GEAR STOPPER	N/A
12. GEAR 22	N/A
13. ROLL ASSEMBLY DRIVE, HCF	P/N 865059K06190
14. BEARING	N/A
15. BEARING	N/A
16. KIT RETARD, TAKEAWAY TRAY 4 (1~3 and 10~15)	P/N 865600K65560

PL12.9 Paper Pick Up - Tray 5

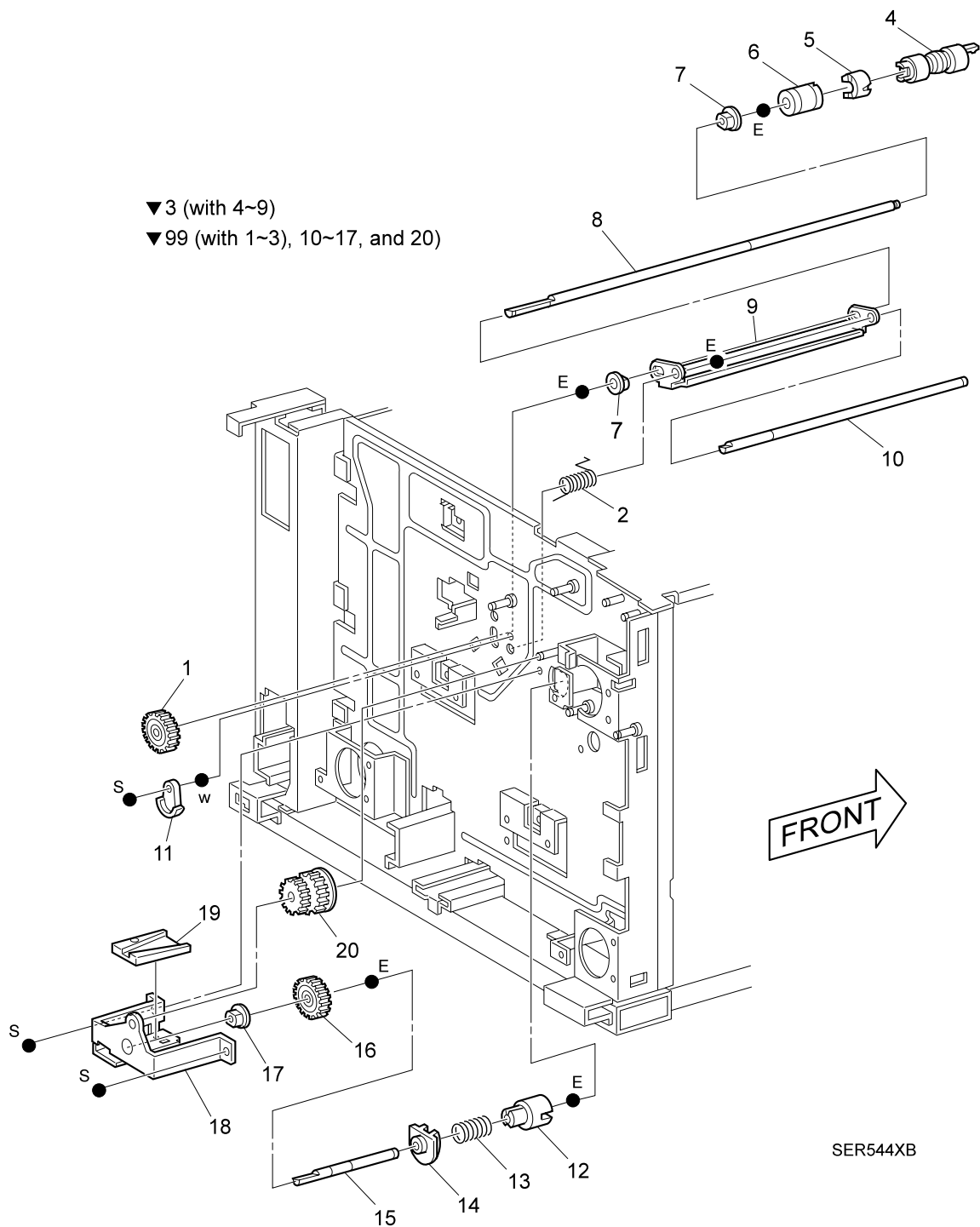


SER543XC

PL12.9 Paper Pick Up - Tray 5

1. FEED CLUTCH (with harness).....	N/A
2. FEED CLUTCH BEARING.....	N/A
3. FEEDER ASSEMBLY (with 4 ~ 12)	N/A
4. BEARING.....	N/A
5. FEED/NUDGER ROLLER	N/A
6. ONE WAY CLUTCH.....	N/A
7. FEED CLUTCH GEAR.....	N/A
8. FEED BEARING.....	N/A
9. FEED SHAFT	N/A
10. FEED IDLER GEAR.....	N/A
11. NUDGER GEAR.....	N/A
12. NUDGER SHAFT ASSEMBLY.....	N/A
13. KIT PAPER PICKUP (1 ~ 3).....	N/A

PL12.10 Retard and Take Away Drive - Tray 5

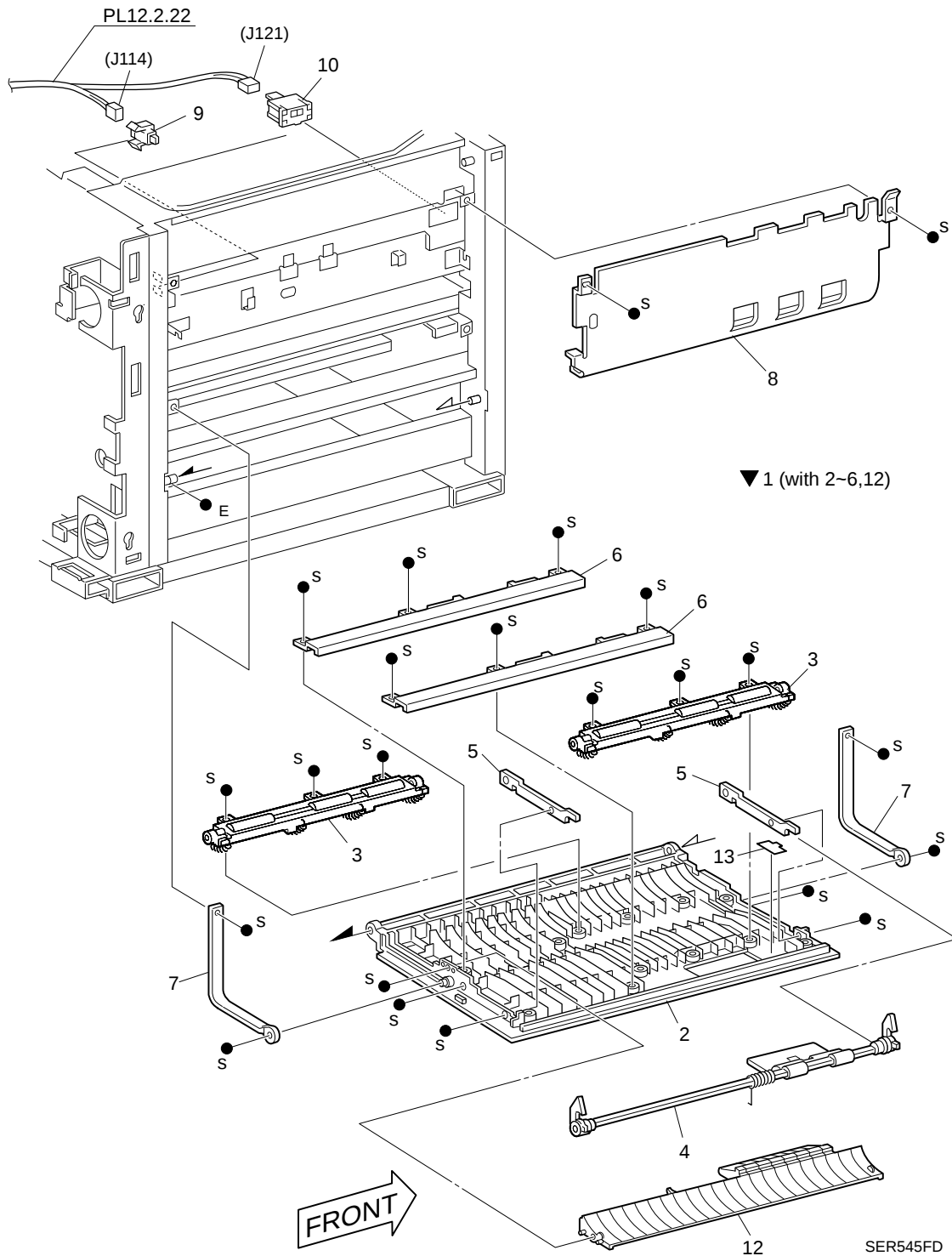


SER544XB

PL12.10 Retard and Take Away Drive - Tray 5

1. RETARD GEAR	N/A
2. RETARD SPRING TRAY 5	N/A
3. RETARD ASSEMBLY (with 4 ~ 9)	N/A
4. RETARD ROLLER	N/A
5. RETARD SPACER	N/A
6. FRICTION CLUTCH	N/A
7. RETARD BEARING	N/A
8. RETARD SHAFT	N/A
9. RETARD SHAFT ASSEMBLY TRAY 5	N/A
10. RETARD SUPPORT SHAFT	N/A
11. FIXED GEAR	N/A
12. TAKE AWAY LINK	N/A
13. TAKE AWAY SPRING	N/A
14. TAKE AWAY SPRING COLLAR	N/A
15. TAKE AWAY DRIVE SHAFT	N/A
16. T/A GEAR	N/A
17. TAKE AWAY BEARING	N/A
18. TAKE AWAY BRACKET	N/A
19. TAKE AWAY TRAY SUPPORT	N/A
20. TRAY 5 DRIVE GEAR	N/A
98. KIT TAKE AWAY TRAY 5	P/N 865600K65570
21. KIT RETARD, TAKEAWAY TRAY 5 (with 1 ~ 3, 10 ~ 17, and 20)	P/N 865600K65580

PL12.11 Left Cover Assembly

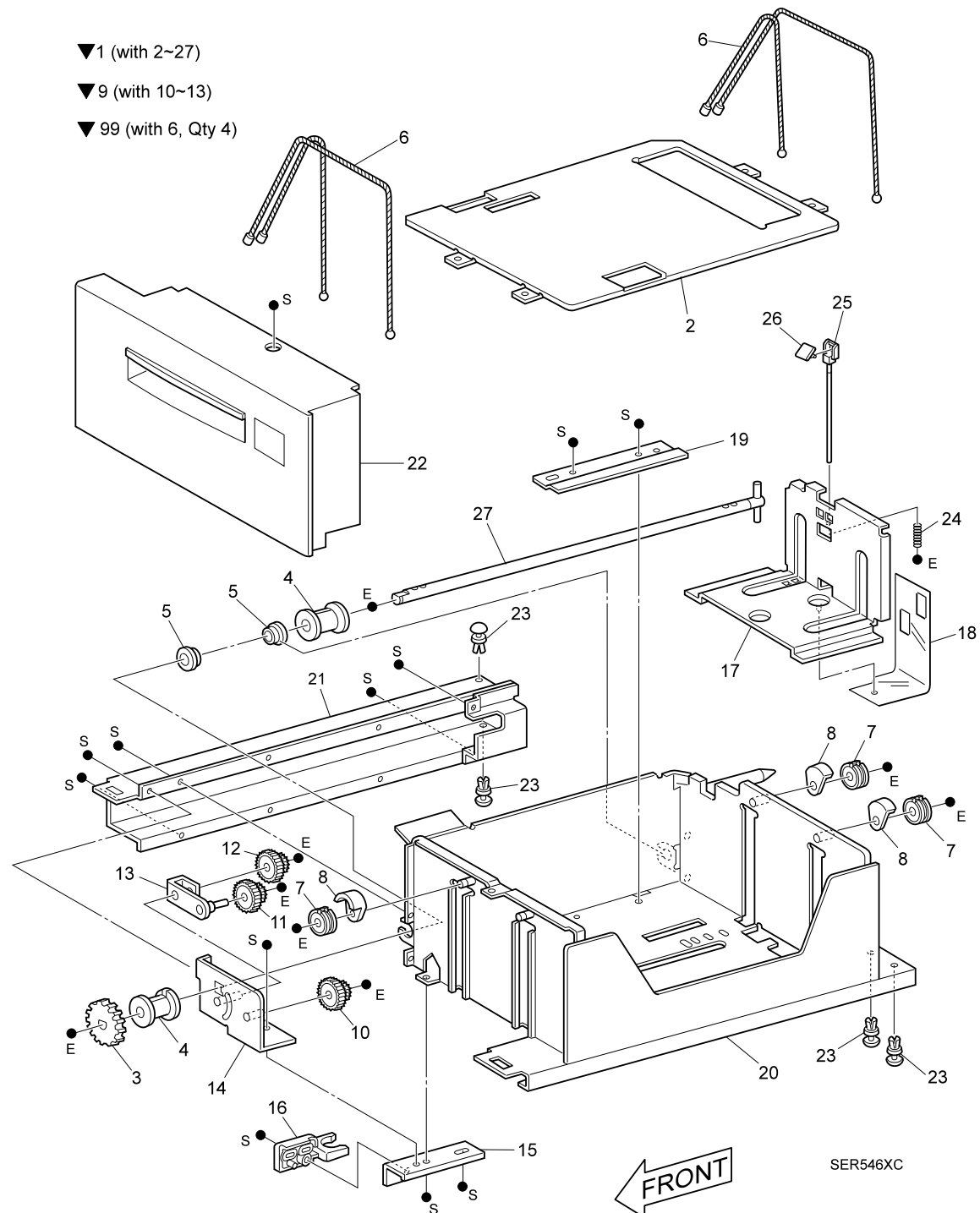


SER545FD

PL12.11 Left Cover Assembly

- 1. LEFT COVER ASSEMBLY (with 2 ~ 6, and 12) P/N 865048K69971
- 2. LEFT CHUTE COVER N/A
- 3. PINCH ROLLER ASSEMBLY N/A
- 4. LEFT COVER HANDLE ASSEMBLY N/A
- 5. LEFT COVER FRAME N/A
- 6. PINCH ROLLER COVER N/A
- 7. LEFT COVER STRAP N/A
- 8. INNER CHUTE N/A
- 9. LEFT COVER INTERLOCK SWITCH..... N/A
- 10. HCF REGISTRATION SENSOR..... N/A
- 11. N/A
- 12. LEFT COVER CHUTE N/A
- 13. TAKE AWAY SENSOR SHIELD N/A

PL13.1 High Capacity Tray 4



SER546XC

PL13.1 High Capacity Tray 4

1. TRAY 4 UNIT (with 2 ~ 27)	P/N 865PC130101
2. BOTTOM PLATE TRAY 4	N/A
3. BOTTOM PLATE LIFT GEAR.....	N/A
4. TRAY 4 BOTTOM PLATE LIFT PULLEY	N/A
5. BOTTOM PLATE LIFT BEARING	N/A
6. TRAY 4 BOTTOM PLATE LIFT WIRE	N/A
7. BOTTOM PLATE LIFT IDLE PULLEY	N/A
8. IDLE PULLEY COVER	N/A
9. RETARD GEAR ASSEMBLY (with 10 ~ 13).....	N/A
10. RETARD GEAR 1	N/A
11. RETARD GEAR 2	N/A
12. RETARD GEAR 3	N/A
13. RETARD GEAR SUPPORT.....	N/A
14. TRAY 4 RETARD GEAR BRACKET	N/A
15. TRAY 4 STOPPER BRACKET	N/A
16. TRAY 4 STOPPER	N/A
17. PAPER END GUIDE.....	N/A
18. END POSITION INDICATION SHEET	N/A
19. END GUIDE SLIDE	N/A
20. TRAY 4 MAIN FRAME.....	N/A
21. TRAY 4 SHAFT COVER	N/A
22. TRAY 4 FRONT COVER	N/A
23. SLIDE KNOB.....	N/A
24. END GUIDE SPRING.....	N/A
25. END GUIDE STOPPER ROD	N/A
26. END GUIDE STOPPER LEVER.....	N/A
27. BOTTOM PLATE LIFT SHAFT	N/A
28. KIT TRAY 4 CABLES (Qty 4 of item 6).....	P/N 865600K61010

HCF-152

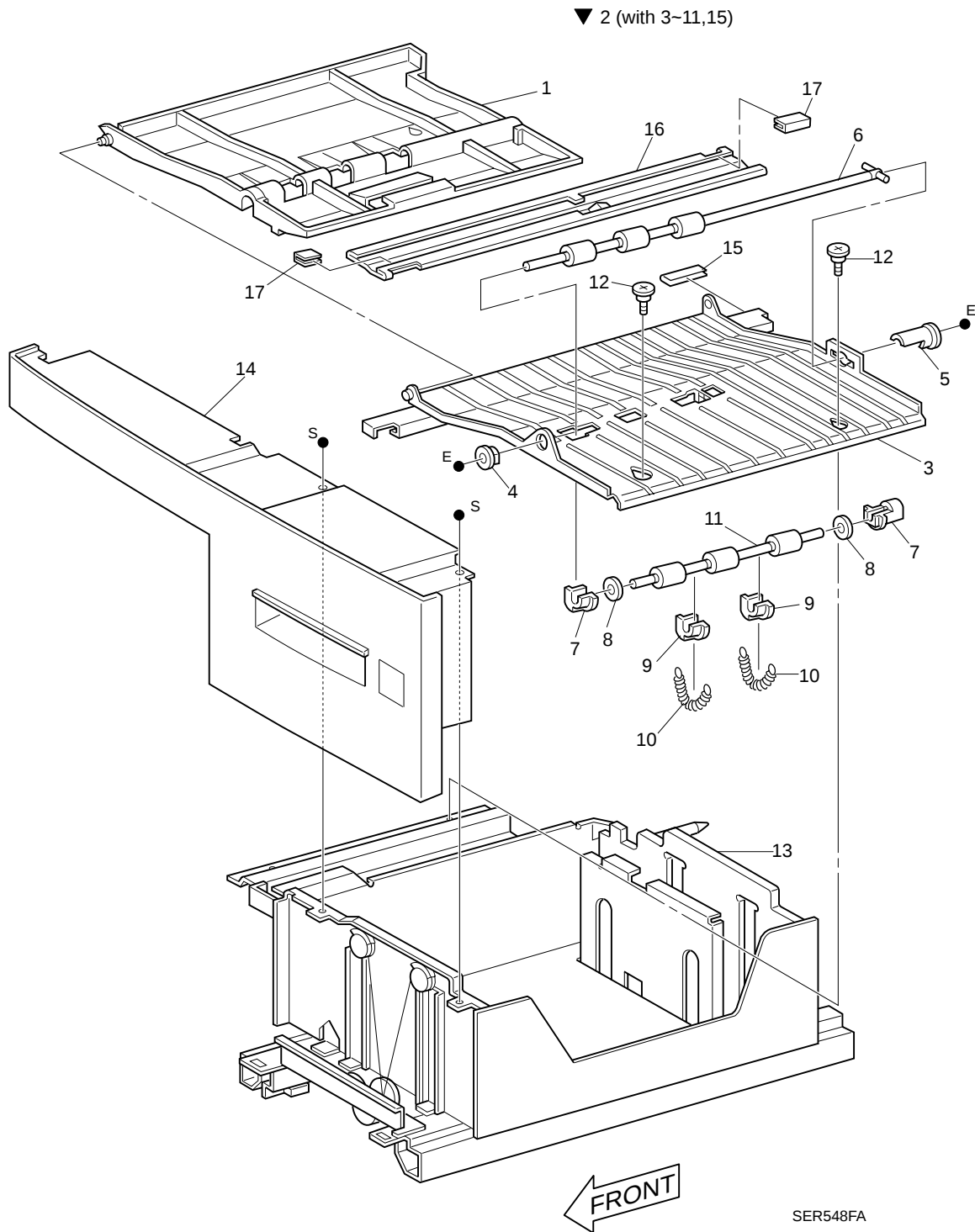


SER547XD

PL13.2 High Capacity Tray 5 - Paper Stack

1. TRAY 5 UNIT (with 2 ~ 22, and PL13.3)	P/N 865050K33812
2. BOTTOM PLATE TRAY 5	N/A
3. BOTTOM PLATE LIFT GEAR.....	N/A
4. TRAY 5 BOTTOM PLATE LIFT PULLEY	N/A
5. BOTTOM PLATE LIFT SHAFT ASSEMBLY	N/A
6. TRAY 5 BOTTOM PLATE LIFT WIRE	N/A
7. BOTTOM PLATE LIFT IDLE PULLEY	N/A
8. LIFT IDLE PULLEY COVER	N/A
9. BOTTOM PLATE LIFT RETARD GEAR ASSEMBLY (with 10 ~ 13)	N/A
10. RETARD GEAR 1	N/A
11. RETARD GEAR 2	N/A
12. RETARD GEAR 3	N/A
13. RETARD GEAR SUPPORT	N/A
14. TRAY 5 RETARD GEAR BRACKET	N/A
15. TRAY 5 STOPPER BRACKET	N/A
16. TRAY 5 STOPPER	N/A
17. PAPER END GUIDE	N/A
18. END POSITION INDICATION SHEET	N/A
19. PAPER END GUIDE SLIDE	N/A
20. END GUIDE STOPPER ROD	N/A
21. END GUIDE STOPPER LEVER.....	N/A
22. END GUIDE SPRING.....	N/A
23. KIT TRAY 5 CABLES (4)	P/N 865600K60950

PL13.3 High Capacity Tray 5 - Paper Feed



SER548FA

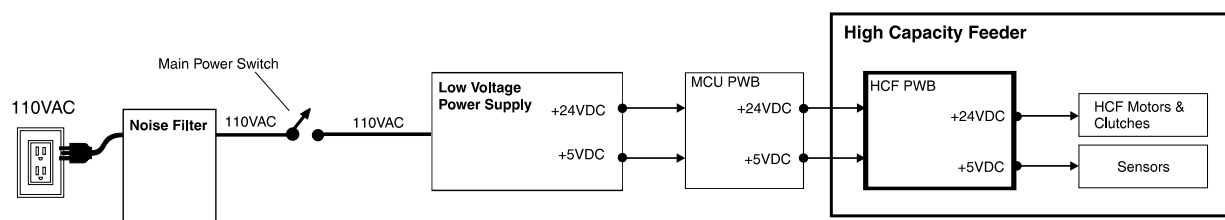
PL13.3 High Capacity Tray 5 - Paper Feed

1. TRAY 5 UPPER CHUTE	N/A
2. TRAY 5 LOWER CHUTE ASSEMBLY (with 3 ~ 11, and 15).....	N/A
3. TRAY 5 LOWER CHUTE	N/A
4. TRAY 5 TAKE AWAY BEARING FRONT	N/A
5. TRAY 5 TAKE AWAY BEARING REAR.....	N/A
6. TRAY 5 TAKE AWAY ROLL	N/A
7. TRAY 5 PINCH ROLL BEARING.....	N/A
8. TRAY 5 PINCH ROLL COLLAR.....	N/A
9. TRAY 5 PINCH ROLL CENTER BEARING	N/A
10. TRAY 5 PINCH ROLL SPRING	N/A
11. TRAY 5 PINCH ROLL.....	N/A
12. CHUTE SCREW	N/A
13. TRAY 5 MAIN FRAME.....	N/A
14. TRAY 5 FRONT COVER	P/N 865PQ130314
15. SLIDE PAD.....	N/A
16. SLIDE BAR.....	N/A
17. SLIDE PAD.....	N/A
99. TRAY5 TRANSPORT ASSEMBLY	P/N 865059K06171

1- High Capacity Feeder Power

The base engine MCU PWB provides the +5VDC and +24VDC that the High Capacity Feeder requires for operation.

The printer AC power cord plugs into a grounded AC wall outlet. The cord carries AC line voltage to the Noise Filter PWB. The Noise Filter smooths the AC voltage and sends it to the Main Power Switch. Switching on the Main Power Switch applies AC voltage to the Low Voltage Power Supply (LVPS) PWB. The LVPS converts the 110VAC to regulated +5VDC and +24VDC voltages. The LVPS sends these voltages to the MCU PWB, and the MCU sends them to the **HCF PWB**. The HCF PWB uses these voltages to run internal logic, sensors, clutches, and motors within the HCF.

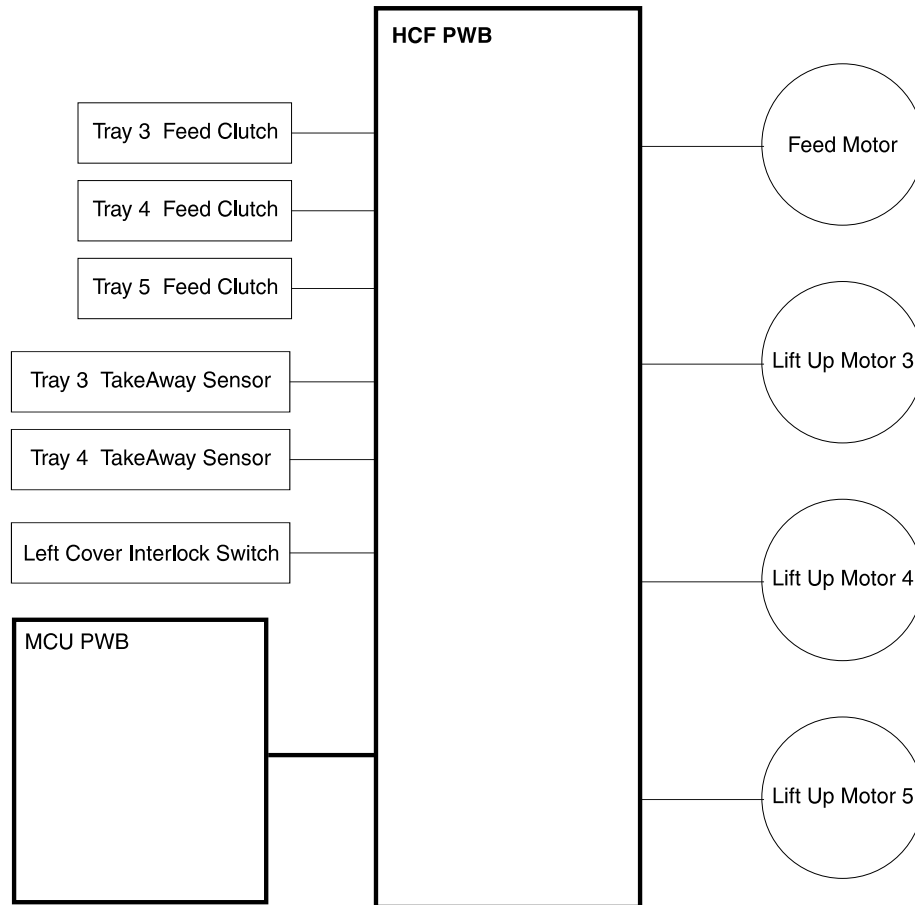


SR1360XA

2- High Capacity Feeder Control

High Capacity Feeder Control is a broad term that is used to describe the printer resources that monitor and control the actions and operations of the printer and the HCF; from paper feed to error detection.

The center of HCF control is the HCF PWB. The MCU PWB provides the logic and information processing that is necessary for the printer to function, and the HCF PWB provides the logic and information processing that is necessary for the HCF to function. Every electrical component within the HCF is connected to the HCF PWB. Sensors in the HCF send paper feed status information to the HCF PWB. The HCF PWB processes that information, shares it with the MCU PWB, and compares it to timing tables stored in ROM. Acting on the results of the processing, the HCF PWB sends commands to the various HCF components; switching on a motor or switching off a feed clutch.



SR1361XB

High Capacity Feeder Control Components

The HCF Control is made up of one several major components.

1. HCF PWB

The HCF PWB controls all HCF functions, executes commands sent from the MCU PWB, and sends information back to the MCU PWB. All HCF components are connected directly to the HCF PWB.

2. L/H Interlock Switch

Monitors the Left Cover position.

3. Feed Motor

Provides most of the mechanical drive for the HCF.

4. Lift Up Motor 3

Raises the paper tray in Feeder 3.

5. Lift Up Motor 4

Raises the paper tray in Feeder 4.

6. Lift Up Motor 5

Raises the paper tray in Feeder 5.

7. Feed Clutch 3

Transmits Feed Motor drive to Tray 3 Feed Rolls.

8. Feed Clutch 4

Transmits Feed Motor drive to Tray 4 Feed Rolls.

9. Feed Clutch 5

Transmits Feed Motor drive to Tray 5 Feed Rolls.

10. Tray 3 Take Away Sensor

Monitors paper travel arriving at the Take Away Rolls in Feeder 3.

11. Tray 4 Take Away Sensor

Monitors paper travel arriving at the Take Away Rolls in Feeder 4.

12. Size Sensors 3, 4, and 5

Monitors the size of the paper that is loaded in a Feeder. The Actuator Assembly located at the rear of the Paper Tray has series of cams that face the Size Sensor PWB. Pushing the Paper Guide against the paper stack slides the Actuator Assembly along a track. When the Tray is inserted into the Feeder, the cams on the Actuator press the switches on the Size Sensor PWB in a pattern that is unique to the position of the Paper Guide. The MCU PWB interprets this pattern as a specific paper size.

13. No Paper Sensors 3, 4, and 5

Monitors the paper level in a Feeder. When the Lift Motor raise the Bottom Plate, the Plate raises the paper stack, the stack pushes the No Paper Actuator up and away from the No Paper Sensor. The Sensor sends a *paper present* signal to the MCU PWB. When the last sheet of paper is fed out of the Paper Tray, the No Paper Actuator drops through a cutout in the Bottom Plate. The Actuator then blocks the Sensor, and the Sensor sends a no paper signal to the MCU PWB.

14. Paper Level Sensors 3, 4, and 5

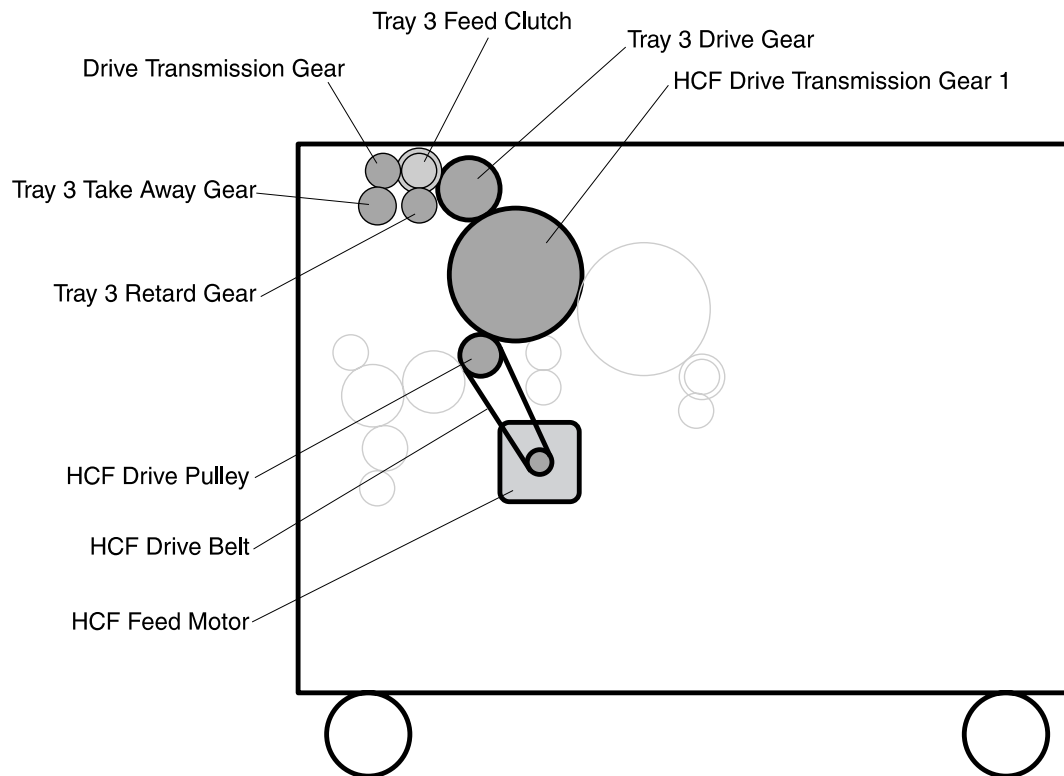
Monitors whether or not a Paper Tray is installed. Installing the Tray pushes the Link Stopper out, which in turn lowers the Feed Roll and moves the Level Sensor Actuator tab away from the Sensor window.

3- Mechanical Drive

Mechanical Drive is a term that is used to describe both the rotation of the High Capacity Feed Motor and the action of the gears, belts, and clutches that are used to transmit and control motor drive to the various components throughout the HCF. The primary purpose of Mechanical Drive within the HCF is to provide the mechanical energy needed to drive a sheet out of an HCF paper tray and into the printer registration area.

Drive for Tray 3

The HCF PWB switches on the Feed Motor. The HCF Drive Belt transmits drive from the Feed Motor to HCF Drive Transmission Gear 1. Gear 1 transmits drive to Tray 3 Drive Gear, which in turn transmits drive to Tray 3 Feed Clutch. When the HCF PWB actuates Tray 3 Feed Clutch, the Clutch transmits drive to the Tray 3 Feed Rolls, to the Retard Rolls, and to the Tray 3 Take Away Rolls.



SR1430X

Mechanical Drive Tray 3 Components

The Mechanical Drive for Tray 3 of the HCF is made up of two motors along with associated gears that transmit the drive to the various Tray 3 paper transport rolls.

1. Feed Motor

Provides most the mechanical drive for Tray 3 paper feed.

2. HCF Drive Belt

Transmits Feed Motor drive to the HCF Drive Pulley.

3. HCF Drive Pulley

Transmits Feed Motor drive to the HCF Drive Gear 1.

4. HCF Drive Gear 1

Transmits Feed Motor drive to Tray 3 Drive Gear

5. Tray 3 Feed Clutch

When actuated by the HCF PWB, the Clutch transmits drive to the Tray 3 Feed Roll, to the Tray 3 Retard Gear, and to the Drive Transmission Gear.

6. Tray 3 Retard Gear

Rotates Tray 3 Retard Roll.

7. Drive Transmission Gear

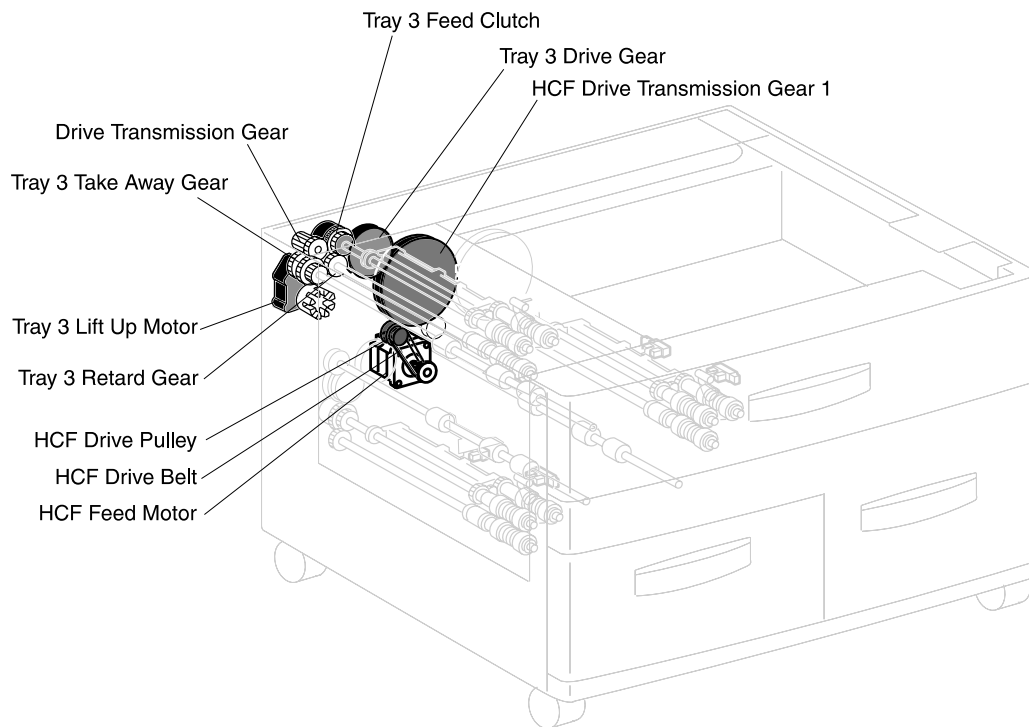
Transmits drive to the Tray 3 Take Away Gear.

8. Tray 3 Take Away Gear

Rotates Tray 3 Take Away Roll.

9. Lift Up Motor 3

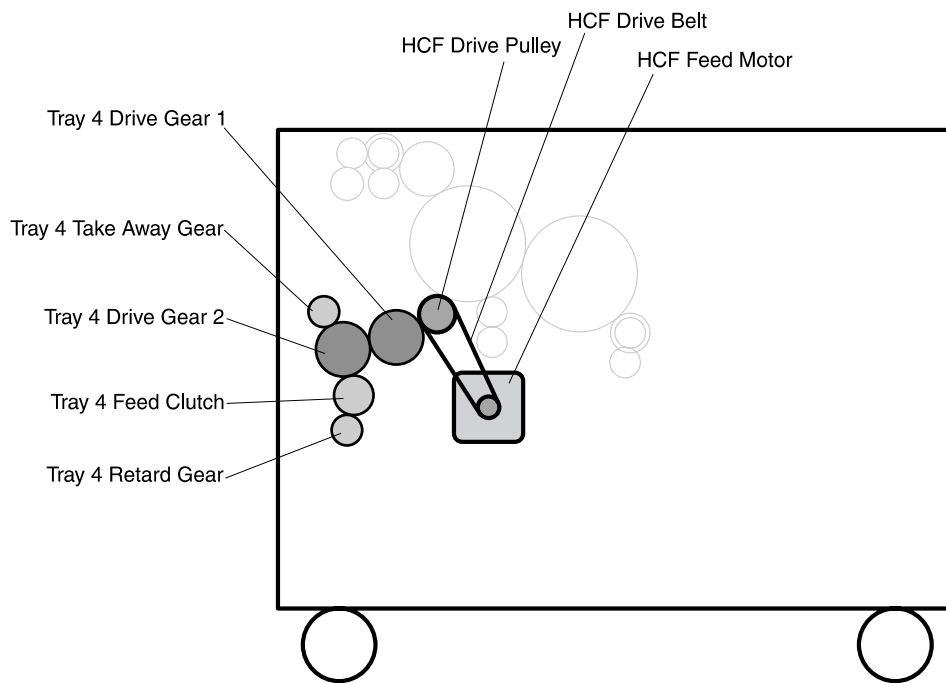
Raises the paper tray in Feeder 3.



SR1433X

Drive for Tray 4

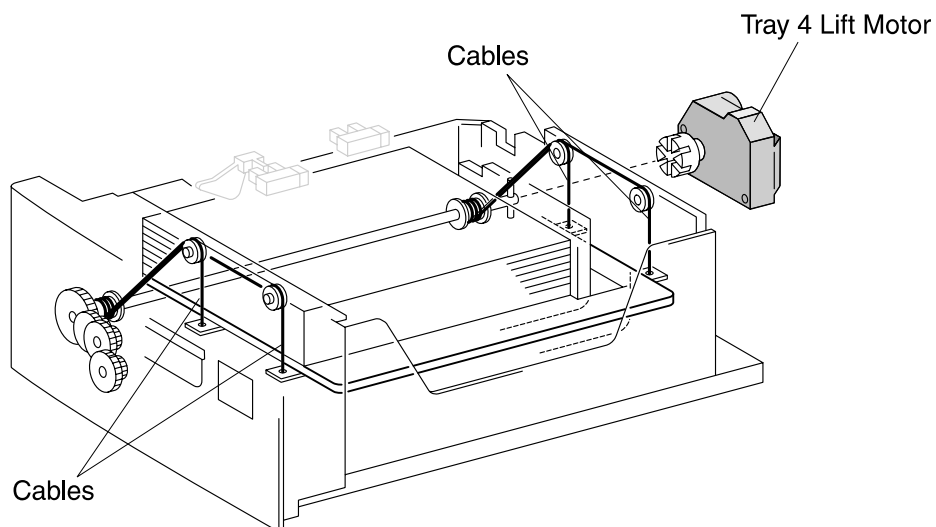
The HCF PWB switches on the Feed Motor. The HCF Drive Belt transmits drive from the Feed Motor to Tray 4 Drive Gear 1. Gear 1 transmits drive to Tray 4 Drive Gear 2, which in turn transmits drive to Tray 4 Take Away Gear and Tray 4 Feed Clutch. When the HCF PWB actuates Tray 4 Feed Clutch, the Clutch transmits drive to the Tray 4 Feed Roll and to the Retard Roll.



SR1431X

Lift Motor Operation for Tray 4

The Tray 4 Lift Motor rotates the Bottom Plate Lift Pulley. Two cables are attached to each end of the Pulley. The other ends of the cables are attached to the four corners of the bottom plate. When the Motor rotates the Pulley, the cables wrap around the Pulley and raise the bottom plate.



SR1460X

Mechanical Drive Tray 4 Components

The Mechanical Drive for Tray 4 of the HCF is made up of two motors along with associated gears that transmit the motor drive to the various Tray 4 paper transport rolls.

1. Feed Motor

Provides most the mechanical drive for Tray 4 paper feed.

2. HCF Drive Belt

Transmits Feed Motor drive to the HCF Drive Pulley.

3. HCF Drive Pulley

Transmits Feed Motor drive to the Tray 4 Drive Gear 1.

4. Tray 4 Drive Gear 1

Transmits Feed Motor drive to the Tray 4 Drive Gear 2

5. Tray 4 Drive Gear 2

Transmits Feed Motor drive to the Tray 4 Take Away Gear and to the Tray 4 Feed Clutch.

6. Tray 4 Feed Clutch

When actuated by the HCF PWB, the Clutch transmits drive to the Tray 4 Feed Roll and to the Tray 4 Retard Gear.

7. Tray 4 Retard Gear

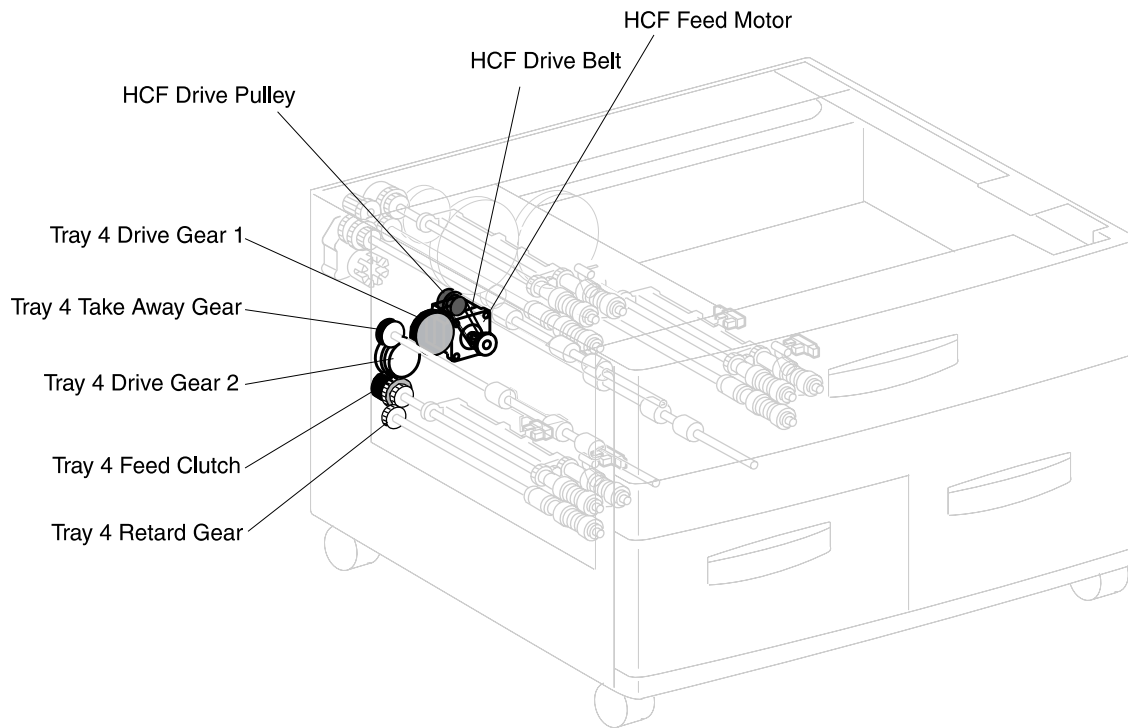
Rotates Tray 4 Retard Roll.

8. Tray 4 Take Away Gear

Rotates Tray 4 Take Away Roll.

9. Lift Up Motor 4

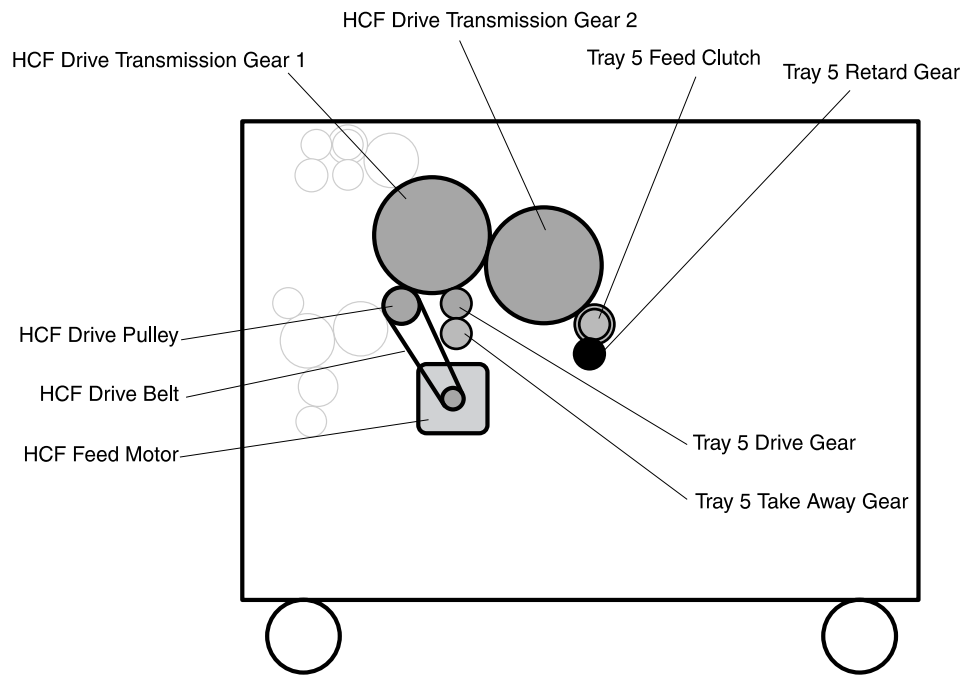
Raises the paper tray in Feeder 4.



SR1434X

Drive for Tray 5

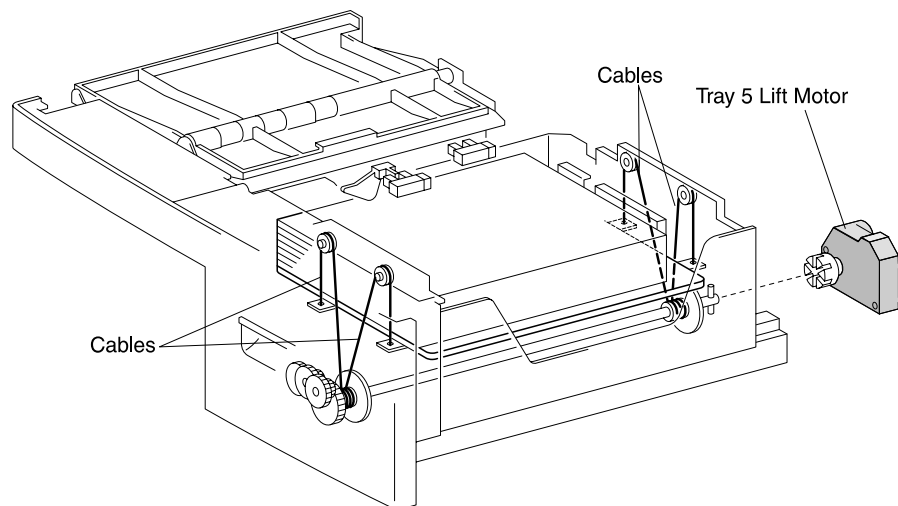
The HCF PWB switches on the Feed Motor. The HCF Drive Belt transmits drive from the Feed Motor to HCF Drive Transmission Gear 1. Gear 1 transmits drive to HCF Drive Transmission Gear 2. HCF Drive Transmission Gear 1 also transmits drive to Tray 5 Drive Gear, which transmits drive to Tray 5 Take Away Gear. HCF Drive Transmission Gear 2 transmits drive to Tray 5 Feed Clutch. When the HCF PWB actuates Tray 5 Feed Clutch, the Clutch transmits drive to the Tray 5 Feed Roll and to the Retard Roll.



SR1432X

Lift Motor Operation for Tray 5

The Tray 5 Lift Motor rotates the Bottom Plate Lift Pulley. Two cables are attached to each end of the Pulley. The other ends of the cables are attached to the four corners of the bottom plate. When the Motor rotates the Pulley, the cables wrap around the Pulley and raise the bottom plate.



SR1461X

Mechanical Drive Tray 5 Components

The Mechanical Drive for Tray 5 of the HCF is made up of two motors along with associated gears that transmit the motor drive to the various Tray 5 paper transport rolls.

1. Feed Motor

Provides most the mechanical drive for Tray 5 paper feed.

2. HCF Drive Belt

Transmits Feed Motor drive to the HCF Drive Pulley.

3. HCF Drive Pulley

Transmits Feed Motor drive to the HCF Drive Transmission Gear 1.

4. HCF Drive Transmission Gear 1

Transmits Feed Motor drive to the HCF Drive Transmission Gear 2 and to the Tray 5 Drive Gear.

5. Tray 5 Drive Gear

Transmits Feed Motor drive to the Tray 5 Take Away Gear.

6. HCF Drive Transmission Gear 2

Transmits Feed Motor drive to the Tray 5 Feed Clutch.

7. Tray 5 Feed Clutch

When actuated by the HCF PWB, the Clutch transmits drive to the Tray 5 Feed Roll and to the Tray 5 Retard Gear.

8. Tray 5 Retard Gear

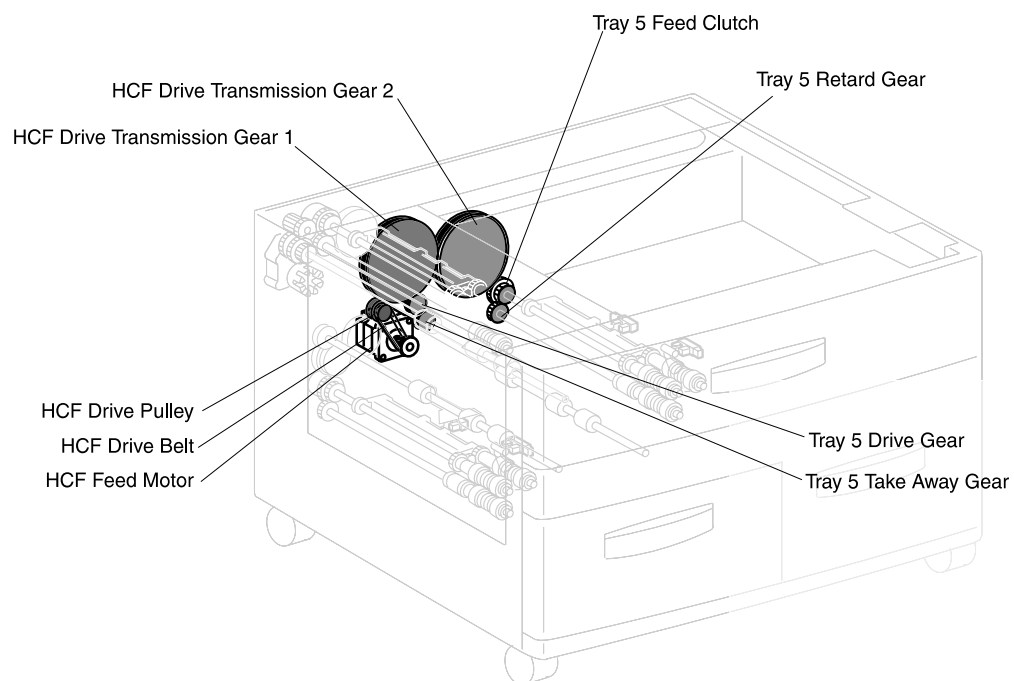
Rotates Tray 5 Retard Roll.

9. Tray 5 Take Away Gear

Rotates Tray 5 Take Away Roll.

10. Lift Up Motor 5

Raises the paper tray in Feeder 5.



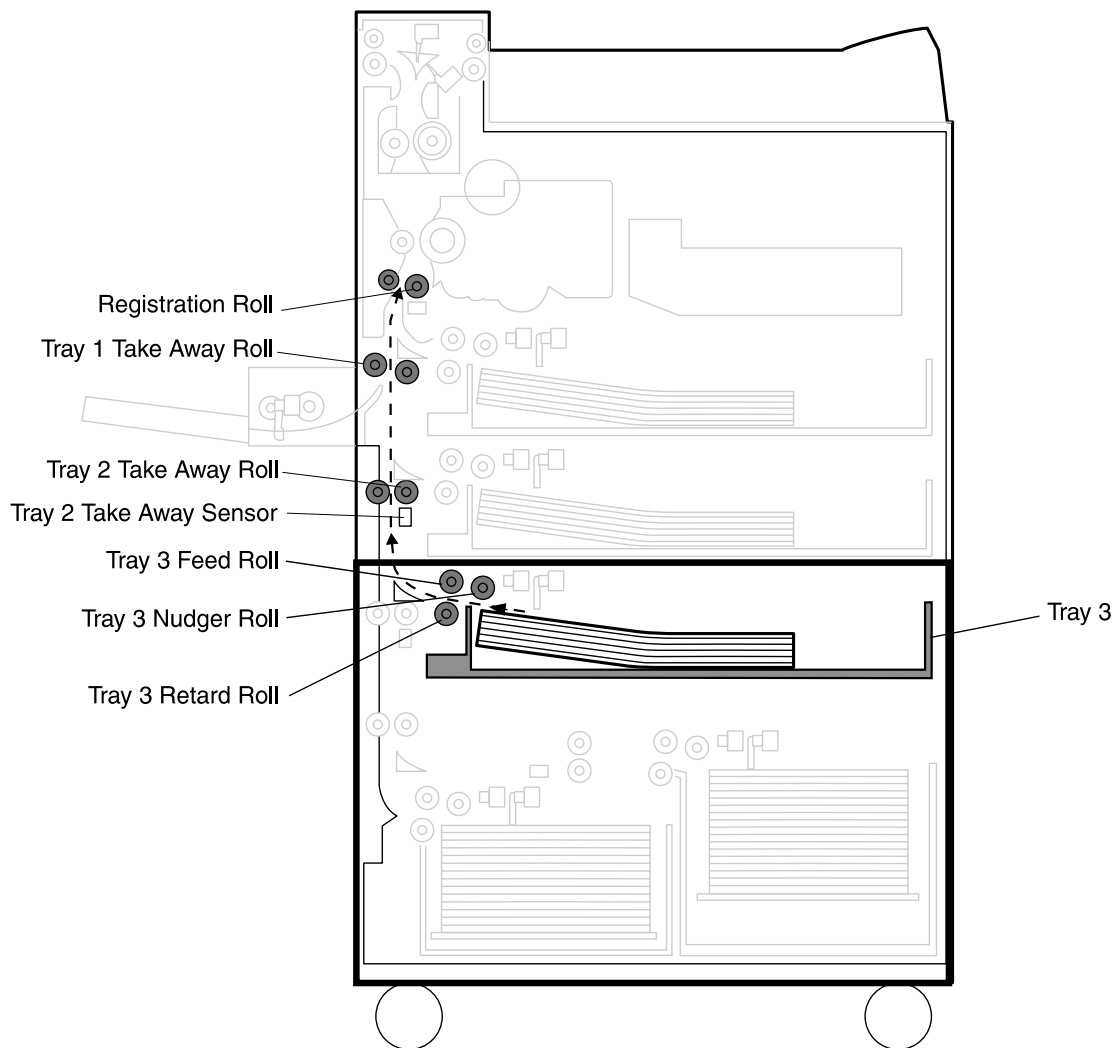
SR1435X

4 - The High Capacity Feeder Paper Path

The High Capacity Feeder Paper Path is the physical route that a sheet of paper takes from an HCF paper tray to the printer during a single print cycle. Rubber rollers drive the paper along the Paper Path.

Feed from Tray 3

At the start of a print cycle the Tray 3 Nudger Roll moves a sheet of paper into Tray 3 Feed Roll. The Feed Roll moves a single sheet of paper out of Tray 3 and toward the Tray 2 Take Away Roll in the base engine. The Tray 3 Retard Roll makes sure that only one sheet of paper is fed. As the sheet of paper is driven to the Tray 2 Take Away Roll it actuates the Tray 2 Take Away Sensor, notifying the MCU PWB logic that the paper has arrived. The Tray 2 Take Away Roll drives the sheet into Tray 1 Take Away Rolls. Tray 1 Take Away Rolls drive the sheet of paper into the Registration Roll. After that, the sheet continues along the printer paper path until the sheet of paper, complete with fused image, is driven into an output tray.



SR1420XA

Tray 3 Paper Path Components

The HCF Tray 3 Paper Path is made up of a number of transport rolls and paper sensors.

1. Tray 3 Assembly

Holds plain paper of various sizes. Slides into the top feeder, Feeder 3, of the High Capacity Feeder.

2. Tray 3 Lift Up Motor

Raises the tray bottom plate so the paper contacts the Feed Roll.

3. Tray 3 No Paper Sensor

Monitors the level of paper in Tray 3.

4. Tray 3 Paper Size Sensor

Monitors the size of paper that is loaded into Tray 3.

5. Tray 3 Feed Clutch

Transmits HCF Motor drive to the Tray 3 Feed Roll and Nudger Roll

6. Tray 3 Nudger Roll

Drives the top sheet of paper into the Feed Roll.

7. Tray 3 Feed Roll

Drives the top sheet of paper out of Tray 3 and into the Tray 2 Take Away Roll area of the base engine.

8. Tray 2 Take Away Sensor

Monitors paper travel from the HCF into the base engine.

9. Tray 2 Take Away Roll

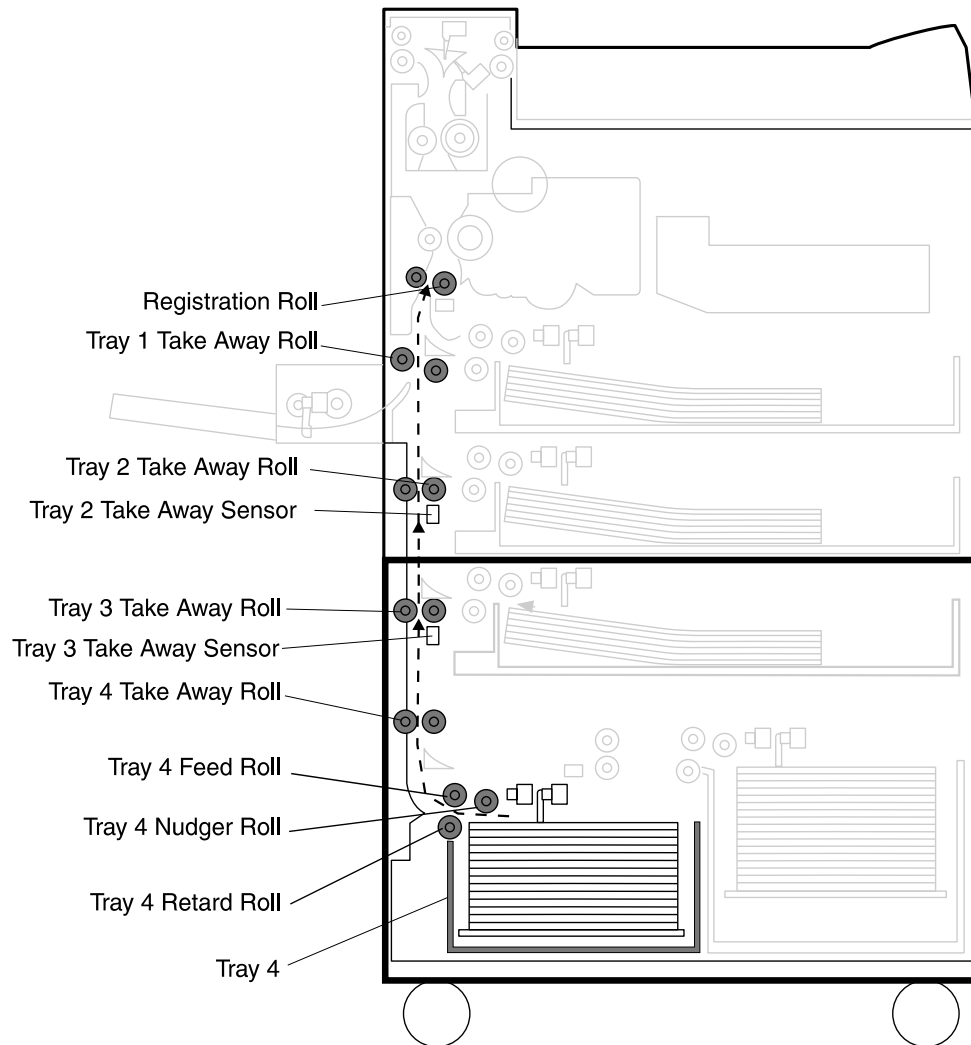
Drives the sheet of paper into the base engine Tray 1 Take Away Rolls.

10. Tray 1 Take Away Roll

Part of the base engine. Drives the sheet of paper into the printer Registration Rolls.

Feed from Tray 4

At the start of a print cycle the Tray 4 Nudger Roll moves a sheet of paper into Tray 4 Feed Roll. The Feed Roll moves a single sheet of paper out of Tray 4 and toward the Tray 4 Take Away Roll. The Tray 4 Retard Roll makes sure that only one sheet of paper is fed. Tray 4 Take Away Roll drives the paper into Tray 3 Take Away Roll. As the sheet of paper is driven to the Tray 3 Take Away Roll it actuates the Tray 3 Take Away Sensor, notifying the MCU PWB logic that the paper has arrived. The Tray 3 Take Away Roll drives the sheet of paper to the Tray 2 Take Away Roll. As the sheet of paper is driven into the Tray 2 Take Away Roll it actuates the Tray 2 Take Away Sensor, notifying the MCU PWB logic that the paper has arrived. The Tray 2 Take Away Roll drives the sheet into Tray 1 Take Away Rolls. Tray 1 Take Away Rolls drive the sheet of paper into the Registration Roll. After that, the sheet continues along the printer paper path until the sheet of paper, complete with fused image, is driven into an output tray.



SER1421XA

Tray 4 Paper Path Components

The HCF Tray 4 Paper Path is made up of a number of transport rolls and paper sensors.

1. Tray 4 Assembly

Holds plain paper of various sizes. Slides into the bottom left feeder, Feeder 4, of the High Capacity Feeder.

2. Tray 4 Lift Up Motor

Raises the tray bottom plate so the paper contacts the Feed Roll.

3. Tray 4 No Paper Sensor

Monitors the level of paper in Tray 4.

4. Tray 4 Paper Size Sensor

Monitors the size of paper that is loaded into Tray 4.

5. Tray 4 Feed Clutch

Transmits HCF Motor drive to the Tray 4 Feed Roll and Nudger Roll

6. Tray 4 Nudger Roll

Drives the top sheet of paper into the Feed Roll.

7. Tray 4 Feed Roll

Drives the top sheet of paper out of Tray 4 and into the Tray 4 Take Away Roll.

8. Tray 4 Take Away Roll

Drives the sheet of paper out of Feeder 4 and into Tray 3 Take Away Roll.

9. Tray 3 Take Away Sensor

Monitors paper travel from the Tray 4 to Tray 3 Take Away Roll.

10. Tray 3 Take Away Roll

Drives the sheet of paper into the Tray 2 Take Away Roll area of the base engine.

11. Tray 2 Take Away Sensor

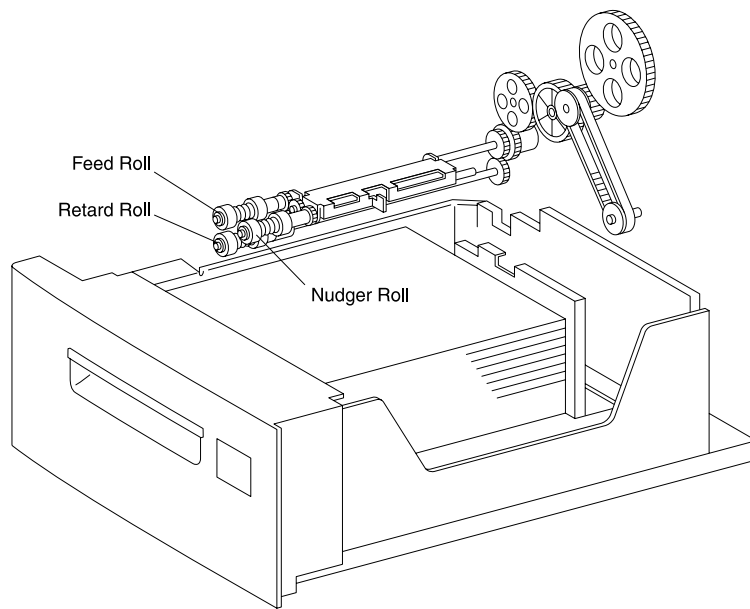
Monitors paper travel from the HCF into the base engine.

12. Tray 2 Take Away Roll

Drives the sheet of paper into the printer Registration Rolls.

13. Tray 1 Take Away Roll

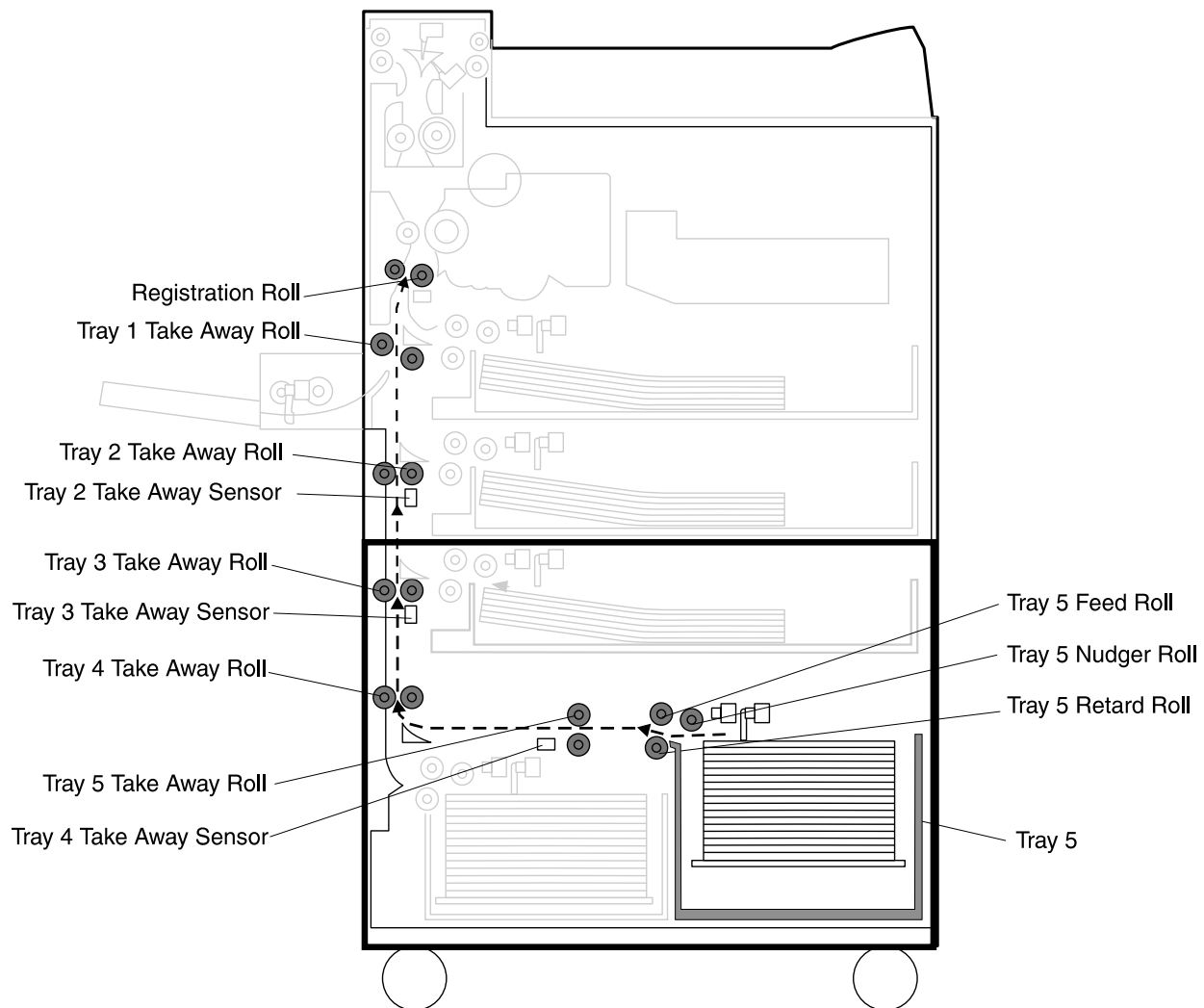
Part of the base engine. Drives the sheet of paper into the printer Registration Rolls.



SER434XA

Feed from Tray 5

At the start of a print cycle the Tray 5 Nudger Roll moves a sheet of paper into Tray 5 Feed Roll. The Feed Roll moves a single sheet of paper out of Tray 5 and toward the Tray 5 Take Away Roll. The Tray 5 Retard Roll makes sure that only one sheet of paper is fed. Tray 5 Take Away Roll drives the paper into Tray 4 Take Away Roll. As the sheet of paper is driven to the Tray 4 Take Away Roll it actuates the Tray 4 Take Away Sensor, notifying the MCU PWB logic that the paper has left Take Away Roll 5. Tray 4 Take Away Roll drives the paper into Tray 3 Take Away Roll. As the sheet of paper is driven to the Tray 3 Take Away Roll it actuates the Tray 3 Take Away Sensor, notifying the MCU PWB logic that the paper has arrived. The Tray 3 Take Away Roll drives the sheet of paper to the Tray 2 Take Away Roll. As the sheet of paper is driven into the Take 2 Take Away Roll it actuates the Tray 2 Take Away Sensor, notifying the MCU PWB logic that the paper has arrived. The Tray 2 Take Away Roll drives the sheet into Tray 1 Take Away Rolls. Tray 1 Take Away Rolls drive the sheet of paper into the Registration Roll. After that, the sheet continues along the printer paper path until the sheet of paper, complete with fused image, is driven into an output tray.



SR1422XA

Tray 5 Paper Path Components

The HCF Tray 5 Paper Path is made up of a number of transport rolls and paper sensors.

1. Tray 5 Assembly

Holds plain paper of various sizes. Slides into the bottom right feeder, Feeder 5, of the High Capacity Feeder.

2. Tray 5 Lift Up Motor

Raises the tray bottom plate so the paper contacts the Feed Roll.

3. Tray 5 No Paper Sensor

Monitors the level of paper in Tray 5.

4. Tray 5 Paper Size Sensor

Monitors the size of paper that is loaded into Tray 5.

5. Tray 5 Feed Clutch

Transmits HCF Motor drive to the Tray 5 Feed Roll and Nudger Roll

6. Tray 5 Nudger Roll

Drives the top sheet of paper into the Feed Roll.

7. Tray 5 Feed Roll

Drives the top sheet of paper out of Tray 5 and into the Tray 5 Take Away Roll.

8. Tray 4 Take Away Sensor

Monitors paper travel from the Tray 5 Take Away Roll to Tray 3 Take Away Roll.

9. Tray 4 Take Away Roll

Drives the sheet of paper out of Feeder 4 and into Tray 3 Take Away Roll.

10. Tray 3 Take Away Sensor

Monitors paper travel from the Tray 4 Take Away Roll to Tray 3 Take Away Roll.

11. Tray 3 Take Away Roll

Drives the sheet of paper into the Tray 2 Take Away Roll area of the base engine.

12. Tray 2 Take Away Sensor

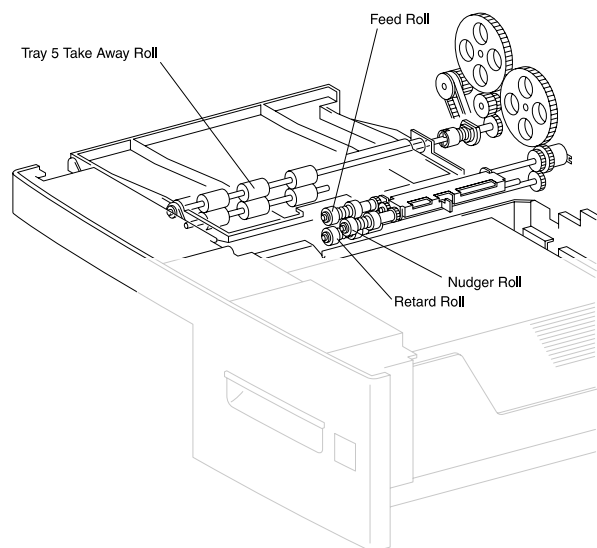
Monitors paper travel from the HCF into the base engine.

13. Tray 2 Take Away Roll

Drives the sheet of paper into the printer Registration Rolls.

14. Tray 1 Take Away Roll

Part of the base engine. Drives the sheet of paper into the printer Registration Rolls.



SER436XA

Section 9 - Wiring Diagrams and Signal Information

This section of the manual contains individual block diagrams (BD) to better illustrate the electrical relationships between components and assemblies within the High Capacity Feeder. Each wire in the diagrams is tagged with a signal name, and each wire is terminated at both ends with a pin number.

Wiring Diagram Notations

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the printer.

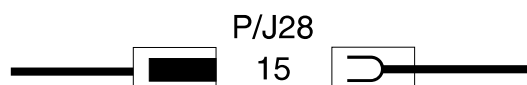
A PLUG



A JACK



CONNECTION OF PIN 15 OF CONNECTORS P28 AND J28.



THE SIGNAL NAME OF A WIRE



THE VOLTAGE MEASURED WITH THE NEGATIVE PROBE OF THE METER ON SG



THE VOLTAGE VALUE OF A SIGNAL



V = The voltage goes LOW when the signal is ON.

SR1400X

In this case, the HEAT signal is ON, so the normal voltage of 4.2VDC drops to 0VDC.

SGSIGNAL GROUND

FGFRAME GROUND

RTNRETURN

There is continuity between SG and RTN. Continuity between FG and SG depends on circuit specifications.

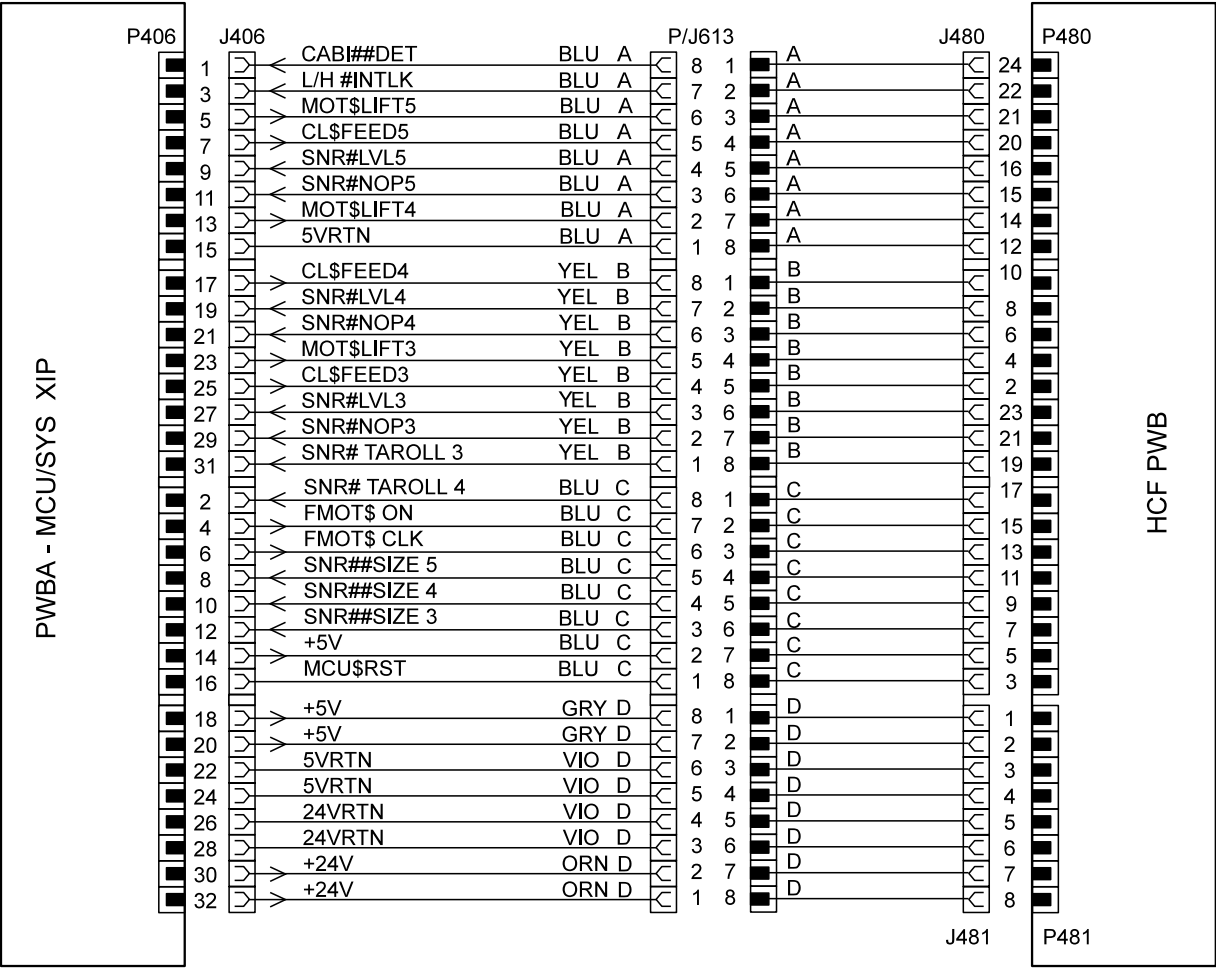
\$\$ in a signal name indicates the signal is coming from the MCU CPU.

in a signal name indicates the signal is going to the MCU CPU.

TTLTTL displayed in the HIGH level or LOW level columns of the signal tables indicate the signal is ECL_CMOS compatible.

HIGH is 4 to 5 VDC

BD1 MCU PWB HCF PWB

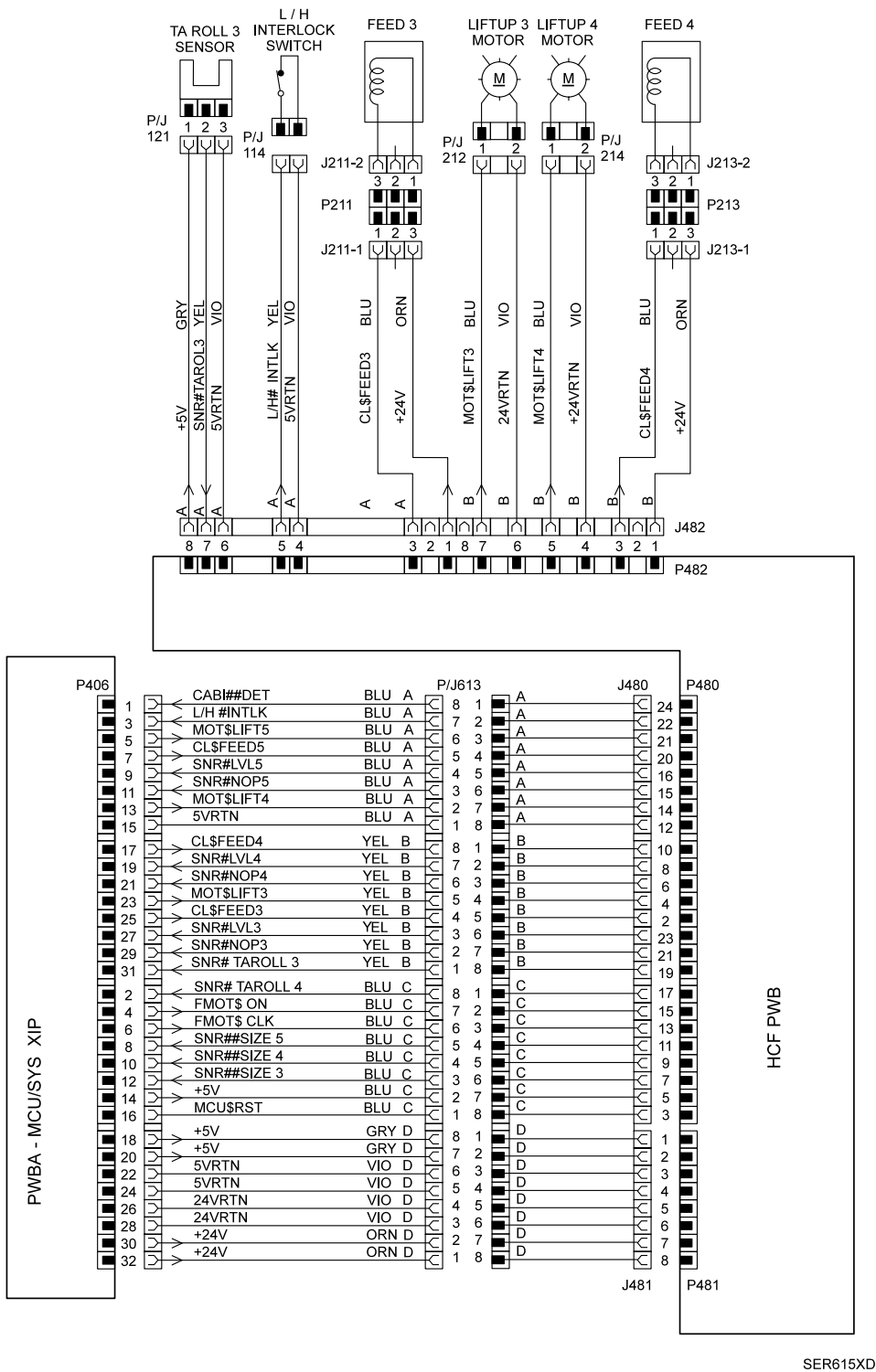


SER614XD

The following table shows the signal names for the MCU PWB to the HCF PWB:

Signal Name	Description
CAB#DET	Monitors presence of the HCF.
L/H#INTLK	Monitors the HCF Cover Interlock Switch. High=Open. Low=Closed
MOT\$LIFT5	Switches Tray 5 Lift Up Motor. High=On. Low=Off
CL\$FEED5	Controls Tray 5 Feed Clutch. High=Off. Low=On (feed)
SNR#LVL5	Monitors the position of Tray 5. High=Not in position. Low=In position
SNR#NOP5	Monitors the level of paper in Tray 5. High=Paper not present. Low=Paper present
MOT\$LIFT4	Switches Tray 4 Lift Up Motor. High=On. Low=Off
CL\$FEED4	Controls Tray 4 Feed Clutch. High=Off. Low=On (feed)
SNR#LVL4	Monitors the position of Tray 4. High=Not in position. Low=In position
SNR#NOP4	Monitors the level of paper in Tray 4. High=Paper not present. Low=Paper present
MOT\$LIFT3	Switches Tray 3 Lift Up Motor. High=On. Low=Off
CL\$FEED3	Controls Tray 3 Feed Clutch. High=Off. Low=On (feed)
SNR#LVL3	Monitors the position of Tray 3. High=Not in position. Low=In position
SNR#NOP3	Monitors the level of paper in Tray 3. High=Paper not present. Low=Paper present
SNR#TAROLL3	Monitors paper travel between Tray 4 and Tray 3. High=Paper present. Low=Paper not present
SNR#TAROLL4	Monitors paper travel between Tray 5 and Tray 4. High=Paper present. Low=Paper not present
FMOT#ON	Switches the HCF Feed Motor. High=Motor off. Low =Motor on.
FMOT#CLK	Clock signal for the HCF Feed Motor
SNR##SIZE5	Analog signal from the Tray 5 Size Sensor
SNR##SIZE4	Analog signal from the Tray 4 Size Sensor
SNR##SIZE3	Analog signal from the Tray 3 Size Sensor
MCU\$RST	CPU reset signal. High=Inactive. Low = Reset

BD2 MCU PWB HCF PWB HCF Trays 3 and 4 Components



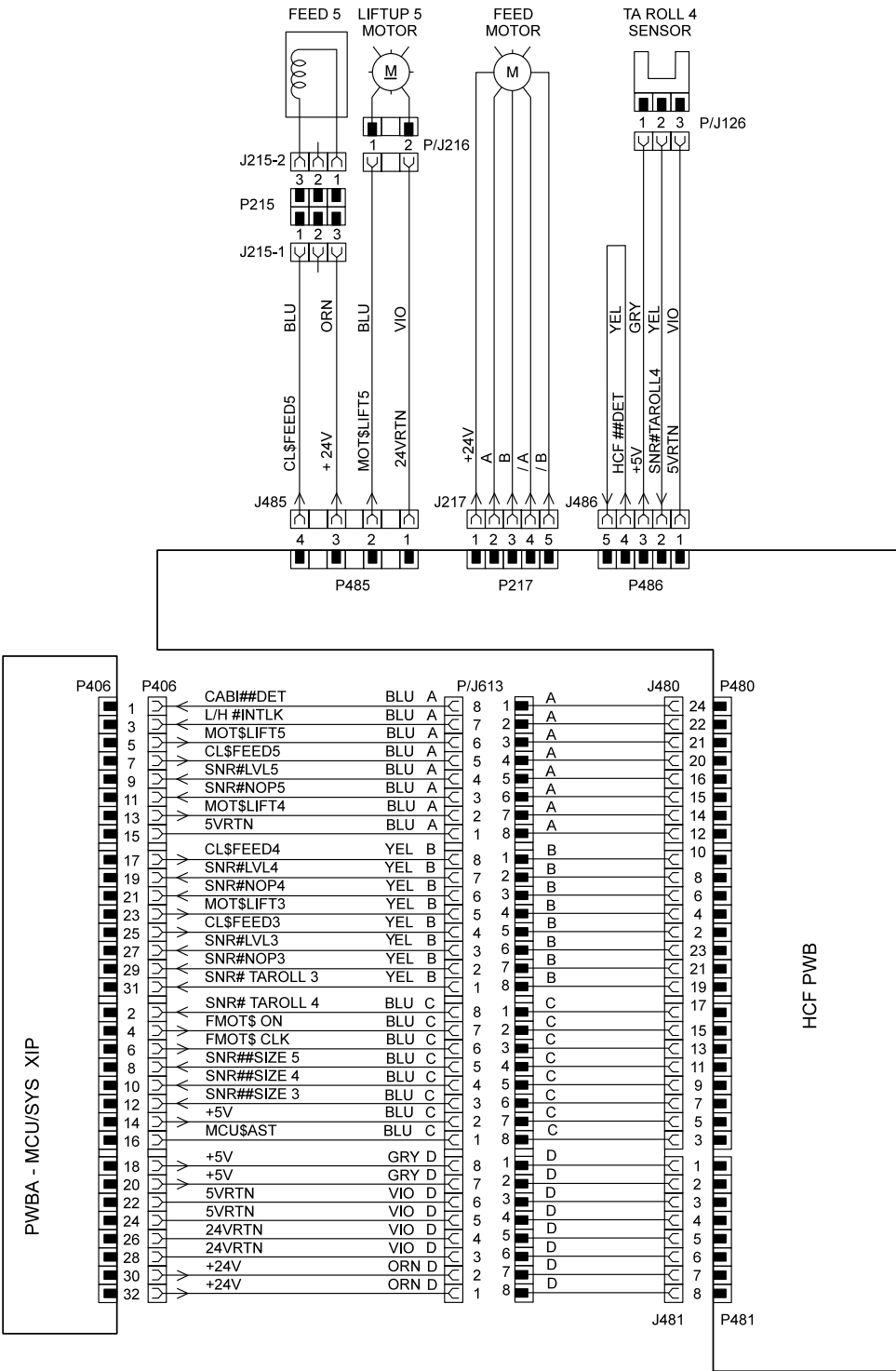
SER615XD

BD2 MCU PWB´HCF PWB´HCF Trays 3 and 4 Components

The following table shows the signal names for the HCF Components to the HCF PWB to the MCU PWB:

Signal Name	Description
SNR#TAROLL3	Monitors paper travel between Tray 4 and Tray 3. High=Paper present. Low=Paper not present
L/H#INTLK	Monitors the HCF Cover Interlock Switch. High=Cover open. Low=Cover closed
MOT\$LIFT3	Switches Tray 3 Lift Up Motor. High=On. Low=Off
CL\$FEED3	Controls Tray 3 Feed Clutch. High=Off. Low=On (feed)
MOT\$LIFT4	Switches Tray 4 Lift Up Motor. High=On. Low=Off
CL\$FEED4	Controls Tray 4 Feed Clutch. High=Off. Low=On (feed)

BD3 MCU PWB HCF PWB HCF Trays 4 and 5 Components



SER616XC

SER616XC

BD3 MCU PWB´HCF PWB´HCF Trays 4 and 5 Components

The following table shows the signal names for the HCF Components to the HCF PWB to the MCU PWB:

Signal Name	Description
SNR#TAROLL4	Monitors paper travel between Tray 5 and Tray 4. High=Paper present. Low=Paper not present.
MOT\$LIFT5	Switches Tray 5 Lift Up Motor. High=On. Low=Off
CL\$FEED5	Controls Tray 5 Feed Clutch. High=Off. Low=On (feed)
/A, A, /B, B	Pulse signals sent by the HCF PWB to rotate the Feed Motor
HCF#DET	Monitors presence of the HCF.

HCF-188



The following table shows the signal names for the HCF Sensors to the HCF PWB to the MCU PWB:

Signal Name	Description
SNR#LVL3	Monitors the position of Tray 3. High=In position. Low=Not in position
SNR#NOP3	Monitors the level of paper in Tray 3. High=Paper present. Low=Paper not present
SNR#SIZE3	Analog signal from the Tray 3 Size Sensor
SNR#LVL4	Monitors the position of Tray 4. High=In position. Low=Not in position
SNR#NOP4	Monitors the level of paper in Tray 4. High=Paper present. Low=Paper not present
SNR#SIZE4	Analog signal from the Tray 4 Size Sensor
SNR#LVL5	Monitors the position of Tray 5. High=In position. Low=Not in position
SNR#NOP5	Monitors the level of paper in Tray 5. High=Paper present. Low=Paper not present
SNR#SIZE5	Analog signal from the Tray 5 Size Sensor

Section 10 - High Capacity Feeder Specifications

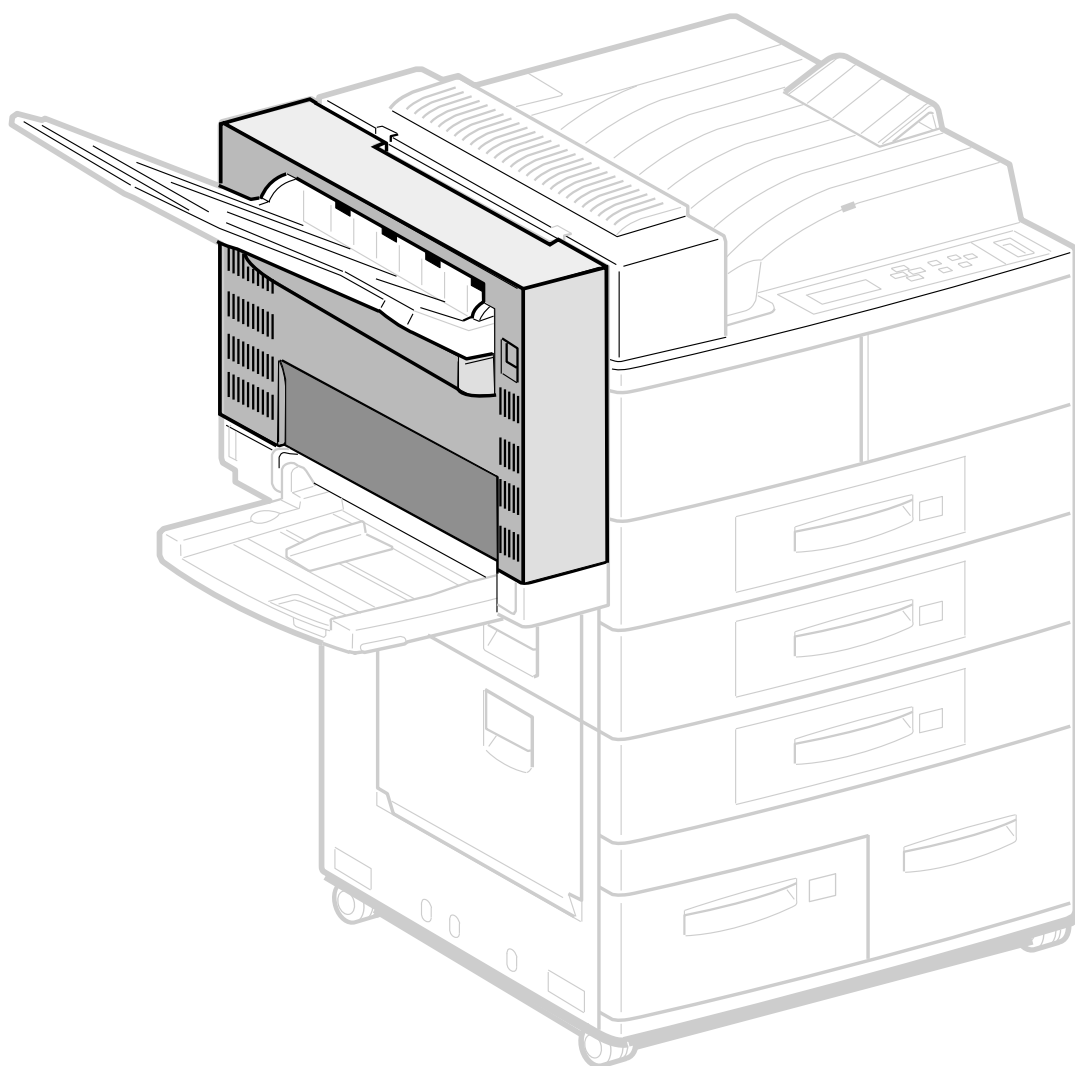
General Specifications

Category	Specification
Configuration	Customer installed option. Attaches under the base printer. The basic High Capacity Feeder (HCF) has three trays; Tray 3 (upper tray) and Tray 4 and Tray 5 (lower trays)
Paper feed	The HCF feeds Letter (LEF), A4 (LEF), Executive (LEF), and B5 (LEF)
Power requirements	The Printer provides all of the HCF power requirements; +5VDC and +24VDC
HCF noise levels	Standby, with all trays closed: 58db Printing, with all trays closed: 70db
Size and weight	Height: 426mm Width: 520mm Depth: 490mm Weight: 35kg

3260/4032 Print System

Duplex Module

Technical Manual



SR1451X

MINOLTA-QMS, Inc.

About this Manual	DUP-4
1. The Fault Isolation Procedure (FIP) Flowchart	DUP-6
2. Primary FIPs: Error Codes	DUP-7
3.1 Error Code E4-2	DUP-7
3.2 Error Code E7-3	DUP-9
3.3 Error Code E8-1	DUP-10
3.4 Error Code E8-2	DUP-11
3.5 Error Code E8-6	DUP-12
3.6 Error Code C6-1	DUP-13
3.7 Error Code C8-6	DUP-14
3. Primary FIPs: Duplex Performance Problems	DUP-15
4.1 Inoperative Duplex Module	DUP-15
4. Running Duplex Module Diagnostics	DUP-17
5. Removal and Replacement Procedures (RRPs)	DUP-23
RRP 12.1 Duplex Module Assembly	DUP-24
RRP 12.2 Duplex Cover	DUP-26
RRP 12.3 Duplex Rear Cover	DUP-28
RRP 12.4 Duplex Front Cover	DUP-30
RRP 12.5 Duplex PWB and Bracket	DUP-32
RRP 12.6 Duplex Wait Clutch	DUP-34
RRP 12.7 Duplex Drive Assembly	DUP-36
RRP 12.8 Duplex Exit Sensor	DUP-38
RRP 12.9 Duplex Exit Gate Solenoid	DUP-40
RRP 12.10 Exit Roll	DUP-42
RRP 12.11 Duplex Wait Sensor	DUP-44
RRP 12.12 Duplex Interlock Switch	DUP-46
RRP 12.13 Exit Roll Belt	DUP-48
RRP 12.14 Duplex Pinch Roll	DUP-50
RRP 12.15 Inner Chute Assembly	DUP-52
6. Locating P/J Connectors	DUP-55
7. PL14 Duplex Module Parts List	DUP-57
8. Principles of Operation	DUP-69
9. Wiring Diagrams and Signal Information	DUP-77
10. Duplex Module Specifications	DUP-83

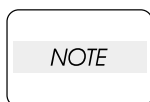
About this Manual

This manual contains technical and service information for the Duplex Module. The information is based on and validated using the model SIM B1 Duplex option. Expect some minor discrepancies in physical appearance, hardware count, and electrical readings due to engineering modifications and manufacturing changes during the life of the product.

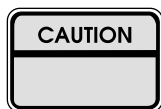
This manual is prepared for use in the United States by MINOLTA-QMS, Inc.. This manual is copyrighted. No portion may be copied, reproduced, submitted to, or read by MINOLTA-QMS, Inc. external customers without the prior consent of MINOLTA-QMS, Inc..

Symbols Used in This Manual

Various symbols are used throughout this manual to either provide additional information on a specific topic, or to warn of possible danger present during a procedure or action. Be aware of all symbols when they are used, and always read NOTE, CAUTION, or WARNING messages.



A Note may indicate an operating or maintenance procedure, practice, or condition that is necessary to accomplish a task efficiently. A Note may also provide additional information that is related to a specific subject, or the results achieved through a previous action.



A Caution indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.



A Warning indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in injury or loss of life.

Section 1- The Fault Isolation Procedure (FIP) Flowchart

How to Use the FIP Flowchart

1. If you have an error code displayed on the printer Control Panel LCD; go to the **ERROR CODE** box.
2. If you have a Duplex operation problem; go to the **Duplex Module PERFORMANCE** box.
3. Follow the arrow leading from your problem box to the individual FIP (Fault Isolation Procedure) that corresponds to your error code or Duplex operation problem.
4. Follow the instructions presented in the FIP.
5. If a FIP instructs you to preform a diagnostic test, refer to Section 8 *Running Duplex Module Diagnostics*.
6. Primary FIPs usually direct you to a Secondary FIP. In the FIP Flowchart, the relationship between Primary and Secondary FIPs is represented with dotted lines

How to Follow a FIP

1. Each numbered step in a FIP instructs you to perform a certain action or procedure.
2. The instruction is followed by a question.
3. If your response to the question is **Yes**, then follow the instructions for a Yes reply.
4. If your response to the question is **No**, then follow the instructions for a No reply.
5. FIPs often ask you to replace a component.

Refer to Removal/Replacement provides to find detailed procedures for removing and replacing all major parts of the Duplex Module.

2	500 SIZE SWITCH SIGNAL (FULL) 1. Install a full Paper Cassette into the Feeder. 2. Check the voltage between J302-1 and J302-2. J302 7 1 SER275X EMPTY = +0.45 VDC LETTER SEF = +2.19 VDC A4 SEF = +2.82 VDC ENVELOPE = +2.62 VDC LEGAL 13" = +2.4 VDC LEGAL 14" = +3.08 VDC Is the voltage between J302-1 and J302-2 at a level that corresponds to the paper size that is loaded in the Cassette?	Go to step 3	Replace the 500 Sheet Size Switch RRP 1.5
---	---	--------------	---

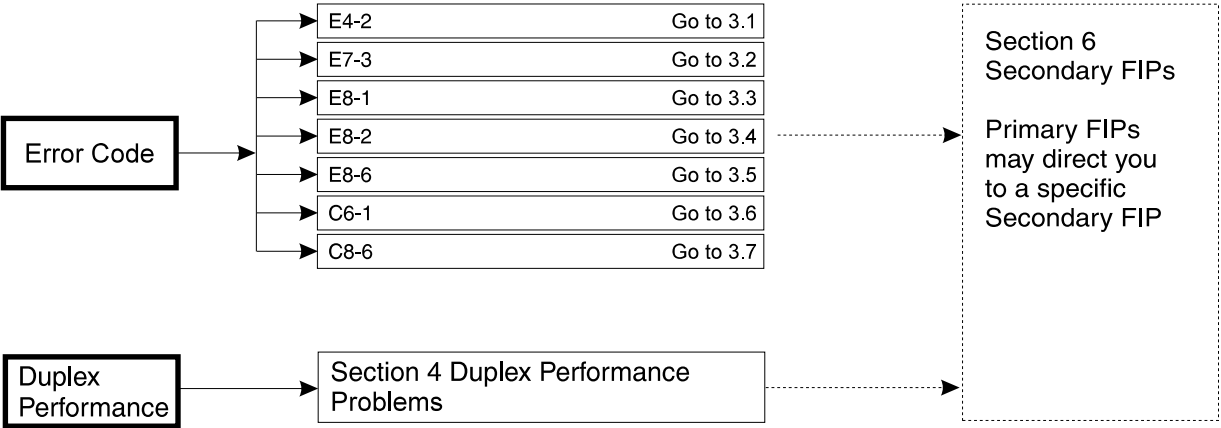
- ↑
• Step number

↑
• Action with substeps, additional information, and a question.

↑
• Action to take if the answer to the question is YES

↑
• Action to take if the answer to the question is NO

FIP Flowchart



SER299X

Section 2- Primary FIPs: Error Codes

2.1 Error Code E4-2

There is a paper jam at the Duplex Module Exit Sensor.

Logic Control on the Duplex PWB sensed the Duplex Module Exit Sensor did not actuate within the specified time after the Face Up Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •Fuser Drive Assembly (RRP 6.2) •Fuser Assembly (RRP 6.1)		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Open the Duplex Module and inspect the paper path between the Fuser and the Duplex for paper scraps or foreign objects that could cause a paper jam. Is the paper path clear?	Go to step 3	Clear the paper path
3	FACE UP EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 10-24. 2. Insert, then remove, a sheet of paper into the Face Up Exit Sensor actuator. Does the Control Panel LCD display H when you insert the paper into the Face Up Exit Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Face Up Exit Sensor (RRP 7.5)
4	DUPLEX MODULE EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-30. 2. Insert, then remove, a sheet of paper into the Duplex Module Exit Sensor. Does the Control Panel LCD display H when you insert the paper into the Exit Sensor, and does the LCD display L when you remove the paper?	Go to step 5	Replace the Duplex Exit Sensor (RRP 12.8)

2.1 Error Code E4-2 continued

Step	Actions and Questions	Yes	No
5	INVERTER CLUTCH TEST 1. Enter Diagnostic Mode - Output Test 10-53 to check the Inverter Clutch function. 2. With 10-53 on, hand rotate (counter clockwise) the Main Motor. Do the Exit Rollers rotate?	Go to step 6	Replace the Exit Drive Assembly (RRP 7.2)
6	DUPLEX MODULE EXIT GATE SOLENOID TEST Enter Diagnostic Mode - Output Test 8-36 to check the Duplex Module Exit Gate Solenoid function. Does the Duplex Module Exit Gate Solenoid actuate when you start Output Test 8-36?	Go to step 7	Replace the Duplex Module Exit Gate Solenoid (RRP 12.9)
7	DUPLEX MODULE EXIT GATE INSPECTION 1. Open the Inner Chute. 2. Check the Duplex Exit Gate and Gate Spring. Is the Duplex Exit Gate in place on the Inner Chute, is the Gate unbroken, does it pivot freely on the Inner Chute, and does it have a spring-action return?	Go to step 8	Reinstall the Exit Gate and Spring or replace the Exit Gate and Spring (PL14.5)
8	DUPLEX MODULE EXIT GATE TEST Enter Diagnostic Mode - Output Test 8-36 to check the Duplex Module Exit Gate function. Does the Duplex Module Exit Gate Solenoid toggle the Exit Gate when you start Output Test 8-36, and does it toggle the Exit Gate in the other direction when you stop Output Test 8-36?	Go to step 9	Realign the Exit Gate Solenoid plunger with the fork at the end of the Gate, or replace the Exit Gate (PL14.5)
9	Replace the Duplex PWB (RRP12.5). Does the E4-2 error code appear?	Replace the MCU PWB (RRP 9.7).	Problem solved

2.2 Error Code E7-3

The Duplex Cover is open.

The Duplex Module is closed, but Logic Control on the Duplex PWB sensed that the Duplex Interlock Switch is open.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	DUPLEX COVER CHECK Open and close the Duplex Cover. The E7-3 is cleared?	Problem solved. Treat as an intermittent	Go to step 2
2	DUPLEX INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode Input H/L 8-33. 2. Open and close the Duplex Module. Does the Control Panel LCD display H when you close the Duplex Module and does the LCD display L when you open the Duplex Module?	Go to step 3	Replace the Duplex Interlock Switch (RRP 12.12)
3	Replace the Duplex PWB (RRP 12.5). Does the E7-3 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

2.3 Error Code E8-1

There is a paper jam at the Duplex Module Exit Sensor.

Logic Control on the Duplex PWB sensed that the Duplex Module Exit Sensor did not deactuate within the specified time after the Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •MCU PWB (RRP 9.6)		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Observe the location of the last sheet of paper out of the Duplex Module. Did the paper exit the Duplex Module?	Go to step 3	Go to step 4
3	DUPLEX MODULE EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-30. 2. Insert, then remove, a sheet of paper into the Duplex Module Exit Sensor. Does the Control Panel LCD display H when you insert the paper into the Duplex Module Exit Sensor, and does the LCD display L when you remove the paper?	Replace the Duplex PWB (RRP 12.5)	Replace the Duplex Exit Sensor (RRP 12.8)
4	DUPLEX MOTOR TEST Enter Diagnostic Mode - Output Test 8-38 to check the Duplex Drive Motor. Does the Duplex Drive Motor run and do the gears of the Drive Assembly rotate?	Go to step 5	Replace the Duplex Drive Assembly (RRP 12.7)
5	EXIT ROLL AND TRANSPORT ROLL CHECK While running Diagnostic Mode - Output Test 8-38 observe the Exit and Transport Rolls. Do the Exit Roll and Transport Roll rotate when you run 8-38?	Replace the Exit Roll (RRP 12.10)	Replace the Exit Roll Belt (RRP 12.13)

2.4 Error Code E8-2

There is a paper jam between the Face Up Exit Sensor and the Duplex Module Wait Sensor.

Logic Control on the Duplex PWB sensed that the Duplex Module Wait Sensor did not actuate within the specified time after the Face Up Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Open the Inner Chute and observe the location of the jammed sheet of paper. Did the paper actuate the Wait Sensor?	Go to step 3	Go to step 4
3	DUPLEX MODULE WAIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-31. 2. Insert, then remove, a sheet of paper into the Duplex Module Wait Sensor. Does the Control Panel LCD display H when you insert the paper into the Duplex Module Wait Sensor, and does the LCD display L when you remove the paper?	Replace the Duplex PWB (RRP 12.5)	Replace the Duplex Wait Sensor (RRP 12.11)
4	DUPLEX MODULE WAIT CLUTCH TEST 1. Open the Inner Chute and place a sheet of paper on the Duplex frame so the edge of the paper touches the Exit Roll. 2. Close the Inner Chute. 3. Enter Diagnostic Mode - Output Test 8-38 to start the Duplex Drive Motor, then enter Output Test 8-37 to start the Wait Clutch. Does the Wait Clutch actuate and does the Exit Roll rotate when you start Output Test 8-37?	Go to step 5	Replace the Duplex Wait Clutch (RRP 12.6)
5	EXIT ROLL OBSERVATION When performing step 4, does the Exit Roll drive the sheet of paper into the Wait Sensor actuator?	Replace the MCU PWB (9.7)	Replace the Exit Roll (RRP 12.10)

2.5 Error Code E8-6

There is a problem with the Duplex Exit Sensor.

Logic Control on the Duplex PWB sensed that the Duplex Module Exit Sensor was on while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	DUPLEX EXIT SENSOR INSPECTION Inspect the Duplex Exit Sensor for contamination or paper scraps that may be actuating the sensor. Is the Duplex Exit Sensor clean and free of paper scraps?	Go to step 2	Clean or clear paper scraps from the Sensor
2	DUPLEX EXIT SENSOR INSPECTION Inspect the Duplex Exit Sensor for damage, such as a broken spring or actuator, that may have locked the Sensor in the on position. Is the sensor undamaged?	Go to step 3	Replace the Duplex Exit Sensor (RRP 12.8)
3	DUPLEX EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-30. 2. Insert, then remove, a sheet of paper into the Duplex Exit Sensor. Does the Control Panel LCD display H when you insert the paper into the Duplex Exit Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Duplex Exit Sensor (RRP 12.8)
4	Replace the Duplex PWB (RRP 12.5). Does the E8-6 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

2.6 Error Code C6-1

There is a paper jam between the Duplex Wait Sensor and the Registration Sensor.

Logic Control on the MCU PWB sensed that the Registration Sensor did not actuate within the specified time after the Duplex Wait Clutch was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Open the Duplex Module and observe the location of the jammed sheet of paper. Is the paper sticking a few inches out of the bottom of the Duplex Module?	Go to step 3	Go to step 4
3	REGISTRATION SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-32. 2. Insert, then remove, a sheet of paper into the Registration Sensor. Does the Control Panel LCD display H when you insert the paper into the Registration Sensor, and does the LCD display a L when you remove the paper?	Go to step 4	Replace the Registration Sensor (RRP x.x)
4	DUPLEX MODULE WAIT CLUTCH TEST 1. Open the Inner Chute and place a sheet of paper on the Duplex frame so the edge of the paper touches the Exit Roll. 2. Close the Inner Chute. 3. Enter Diagnostic Mode - Output Test 8-38 to start the Duplex Drive Motor, then enter Output Test 8-37 to start the Wait Clutch. Does the Wait Clutch actuate and does the Exit Roll rotate when you start Output Test 8-37?	Go to step 5	Replace the Duplex PWB (RRP 12.5)
5	EXIT ROLL OBSERVATION When performing step 4, does the Exit Roll drive the sheet of paper into the Wait Sensor actuator?	Replace the MCU PWB (9.7)	Replace the Exit Roll (RRP 12.10)

2.7 Error Code C8-6

There is a problem with the Duplex Wait Sensor.

Logic Control on the Duplex PWB sensed that the Duplex Wait Sensor was on while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	DUPLEX WAIT SENSOR INSPECTION Inspect the Duplex Wait Sensor for contamination or paper scraps that may be actuating the sensor. Is the Duplex Wait Sensor clean and free of paper scraps?	Go to step 2	Clean or clear paper scraps from the Sensor
2	DUPLEX WAIT SENSOR INSPECTION Inspect the Duplex Wait Sensor for damage, such as a broken spring or actuator, that may have locked the Sensor in the on position. Is the sensor undamaged?	Go to step 3	Replace the Duplex Wait Sensor (RRP 12.11)
3	DUPLEX WAIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-31. 2. Insert, then remove, a sheet of paper into the Duplex Wait Sensor. Does the Control Panel LCD display H when you insert the paper into the Duplex Wait Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Duplex Wait Sensor (RRP 12.11)
4	Replace the Duplex PWB (RRP 12.5). Does the C8-6 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

Section 3 - Primary FIPs: Performance Problems

3.1 Inoperative Duplex Module

The Duplex Module does not function, the Duplex Motor does not switch on, and the problem is not identified by a displayed Error Code.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	INTERFACE CABLE INSPECTION Check the Duplex Interface Cable. Is the Cable firmly connected to the P/J at the rear of the printer?	Go to step 2	Reconnect the Duplex Interface Cable
2	DUPLEX MODE TEST PRINT Enter Diagnostic Mode - Test Print 24-10 (Duplex Mode, blank test pattern, fed from Tray 1). Does the Duplex Module process the Duplex Test Print?	Go to step 3	Go to step 5
3	COMPUTER/PRINTER CONNECTION CHECK Run a simplex print job from the host computer, with output to the Face Down Output Tray. Does the printer process the simplex print job?	Go to step 4	Reconnect or replace the computer/printer interface cable or check for a possible computer hardware problem
4	DRIVER SOFTWARE RELOAD 1. Reload the printer driver software. 2. Run a duplex print job from the host computer. Does the printer process the duplex print job?	Problem solved	Replace the Video Controller (RRP 9.8)
5	DUPLEX MOTOR TEST Enter Diagnostic Mode - Output Test 8-38 to check the Duplex Motor. Does the Duplex Motor run?	Go to step 8	Go to step 6

3.1 Inoperative Duplex Module continued

Step	Actions and Questions	Yes	No
6	DUPLEX MODULE VOLTAGE CHECK 1. Remove the Duplex Cover (RRP 12.2) and reinstall the cover-less Module onto the printer. 2. Reconnect the Duplex Interface Cable to the P/J at the rear of the printer. 3. Switch on the printer power. 4. Measure the voltage between J473-13 and FG (frame ground), and the voltage between J473-2 and FG on the Duplex PWB. Is there +5VDC between J473-13 and FG, and is there +24VDC between J473-2 and FG?	Replace the Duplex Drive Assembly (RRP 12.7)	Go to step 7
7	MCU PWB POWER OUT CHECK 1. Remove the printer Rear Cover (RRP 1.3). 2. Measure the voltage between J404-6 and FG, and the voltage between J404-12 and FG on the MCU PWB. Is there +5VDC between J404-6 and FG, and is there +24VDC between J404-12 and FG?	Replace the MCU PWB (RRP 9.7)	Replace the LVPS (RRP 9.2)
8	DRIVE BELT INSPECTION 1. Remove the Duplex Cover (RRP 12.2) and reinstall the cover-less Module onto the printer. 2. Reconnect the Duplex Interface Cable to the P/J at the rear of the printer. 3. Enter Diagnostic Mode - Output Test 8-38 to run the Duplex Motor. 4. Inspect the various belts and gears driven by the Duplex Motor. Are any of the drive belts slipping or any of the drive gears not rotating?	Replace the problem belt or gear. (PL12)	Replace the Duplex PWB (RRP 12.5)

Section 4- Running Duplex Module Diagnostics

Diagnostic Mode Routines and Subroutines

While in Diagnostic Mode you have access to a variety of test functions:

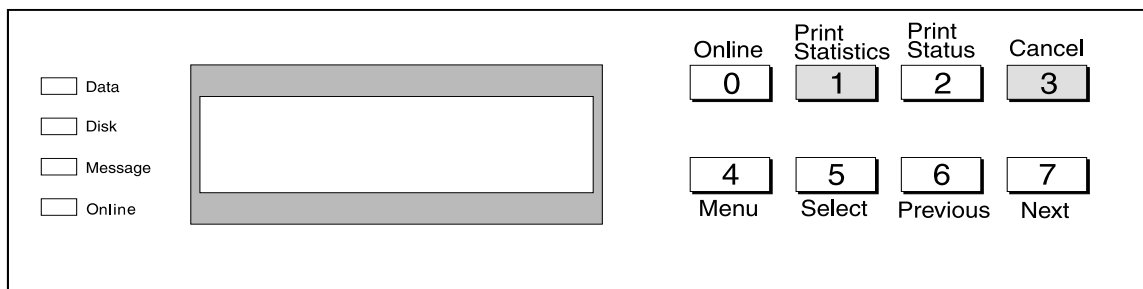
- 1 **Input Test (H/L)**
Check the signal level (on/off) coming from a specific sensor.
- 1 **Output Test**
Switch on and off a specific component, such as a motor or solenoid.
- 1 **Test Print**
Generate a built-in Test Pattern.

Before running Diagnostics

Connect the printer Control Panel to the MCU PWB (Refer to *Section 7-Diagnostic Mode and the Control Panel* of the Base Engine Technical Manual) on how to connect and use the Control Panel to run Diagnostics).

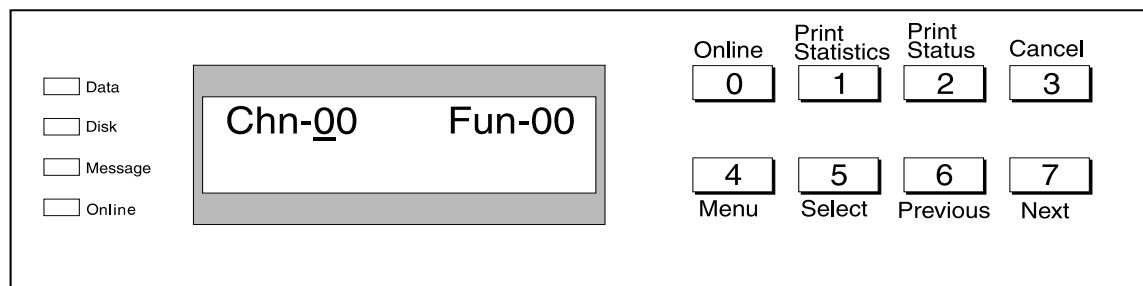
To enter Diagnostic Mode

1. Press and hold [1] and [3] while you switch on printer main power.



SER875X

2. When the Control Panel LCD displays *Chn-00 Fun-00*, as shown below, release [1] and [3].
The printer is now in Diagnostic Mode.



SER876X

Running an Output Test

Use this Diagnostic routine to actuate Duplex Module components such as motors, solenoids, and clutches. You can run multiple output tests simultaneously.

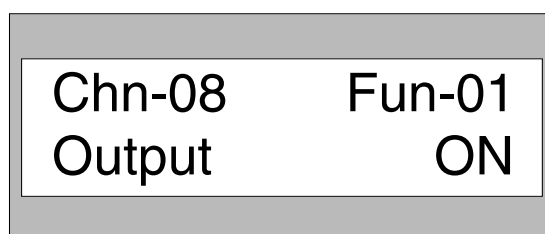
1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select a Duplex Module related Output Test from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Output test.

The LCD displays the *Chn* - *Fun* number of the test, *Output*, and *ON* to indicate the test has started.

The output component under test should click, switch on, or start running.



SER877X

7. Press Function Key [0] to stop the Output Test.
8. Press [1] to restart the test if necessary.

Output Tests for the Duplex Module

Chain (Routine)	Function (Subroutine)	Switches on the...	Comments
8	36	Duplex Module Exit Gate Solenoid	Switches off after 3 seconds
8	37	Duplex Module Wait Clutch	Switches off after 3 seconds
8	38	Duplex Module Drive Motor at slow speed	
8	39	Duplex Module Drive Motor at fast speed	
8	50	Invert Clutch CW	Controlled by the Duplex Module Switches off after 3 seconds
8	51	Invert Clutch CCW	Switches off after 3 seconds
10	51	Exit Gate Solenoid	Switches the Gate to the Face Up Tray
10	53	Invert Clutch CW and Face Up Exit Clutch	

Running an Input Test (H/L)

Use this Diagnostic routine to check the digital signal level (High or Low) from a Duplex Module sensor or switch. This test tells you whether or not a sensor or switch is working correctly and is sending a signal to the MCU PWB.

1. Enter Diagnostic Mode

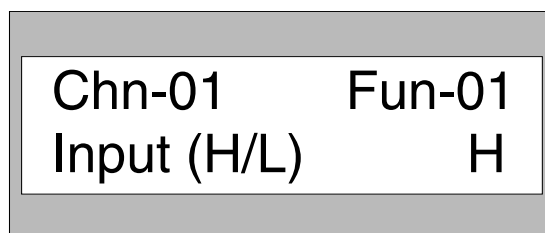
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select a Duplex Module related Input Test (H/L) from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Input test.

The LCD displays the *Chn - Fun* number of the test, *Input (H/L)*, and *H or L* to indicate the status of the sensor or switch at that moment.

7. Watch the status field as you manually actuate the sensor or switch.

The status field should change from either H to L or L to H as you manually actuate and deactivate the sensor or switch.



SER878X

8. When you are finished with this test, switch off printer main power to exit Diagnostic Mode.

Input Tests (H/L) for the Duplex Module

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
8	5	Registration Sensor (base engine)	H = Paper sensed L = No paper sensed
8	30	Duplex Module Exit Sensor	H = Paper sensed L = No Paper sensed
8	31	Duplex Module Wait Sensor	H = Paper sensed L = No Paper sensed
8	32	Registration Sensor (for Duplex operation)	H = Paper sensed L = No paper sensed
8	33	Duplex Module Interlock Switch	H = Interlock open L = Interlock closed

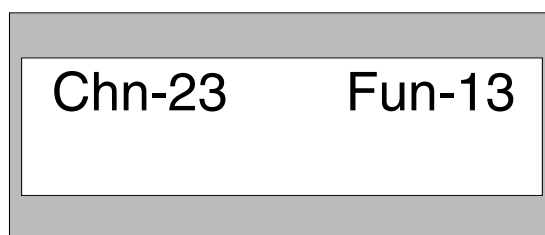
Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
8	34	Fuser Exit Sensor (for Duplex operation)	H = Paper sensed L = No paper sensed
10	24	Face Up Exit Sensor	H = No paper sensed L = Paper sensed

Running Test Print

Use this diagnostic routine to print a specific type of duplex test pattern. The test patterns are built into the printer circuitry, so Test Print is an excellent tool for isolating and diagnosing Duplex Module problems.

To generate a Test Print

1. Enter Diagnostic Mode
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.
2. Select a specific Test Print pattern from the table on the next page.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to generate a Test Print.
The printer generates test prints until you stop the routine.



SER881X

To stop Test Print

Press Function Key [0].

Test Print Table for Duplex Mode

NOTE

*The Duplex Module provides duplex printing for paper fed from all available paper trays **except the MSI and the Envelope Feeder**. Paper fed from either the MSI or the Envelope Feeder **cannot be duplexed**.*

Chain (Routine)	Function (Subroutine)	Tray, Mode, and Test Pattern Type
24	10	Tray 1 Duplex Mode: Blank sheet of paper
24	11	Tray 1 Duplex Mode: Solid black up to the white margins
24	13	Tray 1 Duplex Mode: 4 dot grid pattern
24	20	Tray 2 Duplex Mode: Blank sheet of paper
24	21	Tray 2 Duplex Mode: Solid black up to the white margins

Chain (Routine)	Function (Subroutine)	Tray, Mode, and Test Pattern Type
24	23	Tray 2 Duplex Mode: 4 dot grid pattern
24	30	Tray 3 Duplex Mode: Blank sheet of paper
24	31	Tray 3 Duplex Mode: Solid black up to the white margins
24	33	Tray 3 Duplex Mode: 4 dot grid pattern
24	40	Tray 4 Duplex Mode: Blank sheet of paper
24	41	Tray 4 Duplex Mode: Solid black up to the white margins
24	43	Tray 4 Duplex Mode: 4 dot grid pattern
24	50	Tray 5 Duplex Mode: Blank sheet of paper
24	51	Tray 5 Duplex Mode: Solid black up to the white margins
24	53	Tray 5 Duplex Mode: 4 dot grid pattern

Section 5 - Removal and Replacement Procedures (RRP)

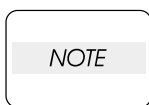
This section contains the removal and replacement procedures for major parts within the printer Duplex Module.

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power.
2. Disconnect the AC power cord from the wall outlet.
3. Wear an electrostatic discharge wrist strap to protect sensitive printer parts from damage.

Work Notes



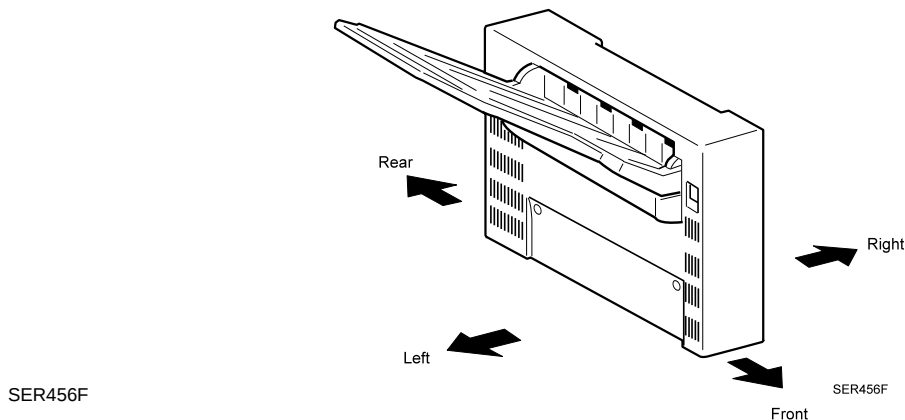
Names of parts that appear in the RRP's may not be exactly the same as the names appear in the parts list. For example, an RRP for the MSI Tray Assembly may appear on the parts list as Tray Assembly MSI.



Always reinstall the correct type and size screws. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install a part.

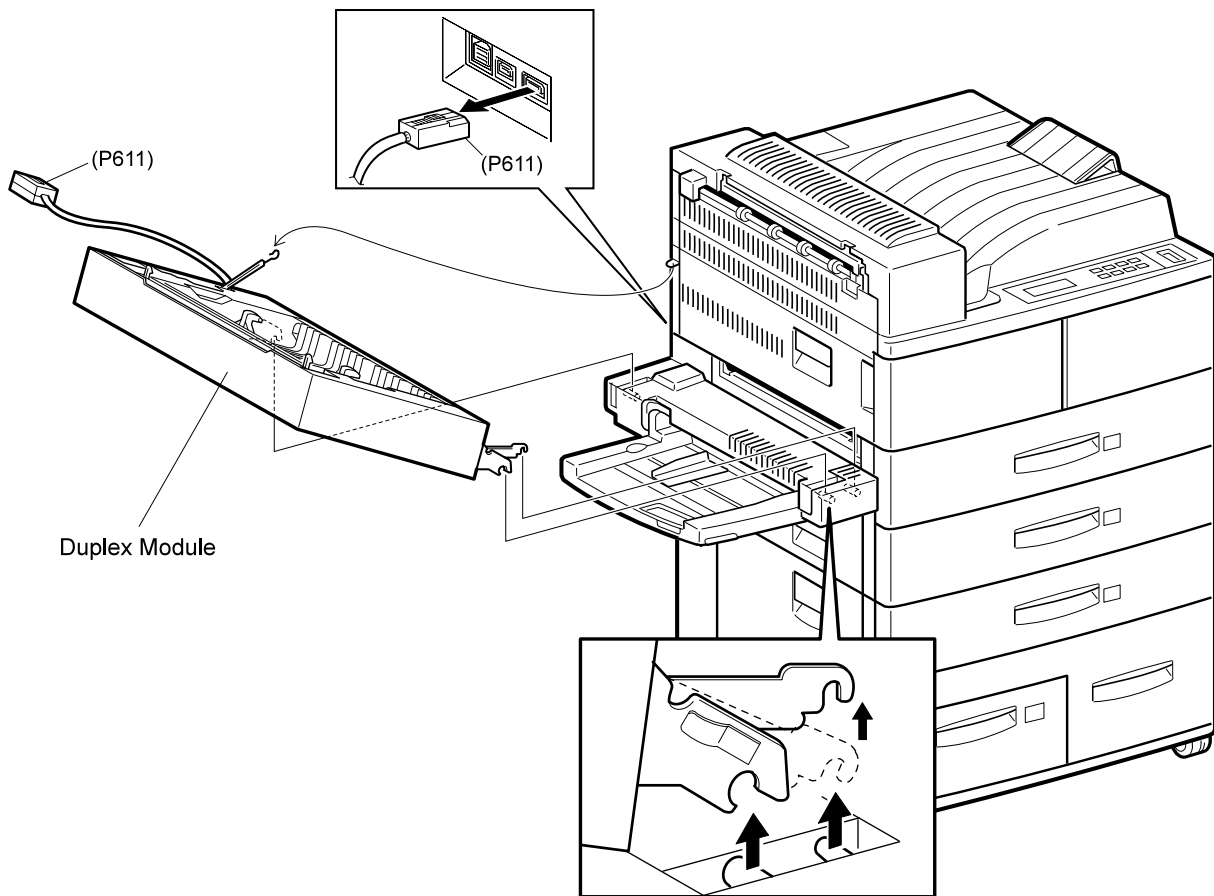
Notations in the RRP text

- Locations, such as R or right, given in the RRP's assume you are facing the printer console panel.



- The notation “(See RRP X.Y)” in a RRP step, directs you to another RRP to see how to perform a related or pre-requisite procedure.
- The notation “(Figure X.Y)” points to the illustration that corresponds to the RRP you are performing.
- The notation “(PLX)” indicates that this component is listed in the PLX parts list.
- Arrows in an illustration show direction of movement when removing a component.
- Slashes in a part name indicate that numerous components share the same heading and function. For example, "Gears In/Feed/Out" refers to Gear In, Gear Feed, and Gear Out.

RRP 12.1 Duplex Module Assembly (PL14.1)



SER451XB

SER451XB

RRP 12.1 Duplex Module Assembly (PL14.1)

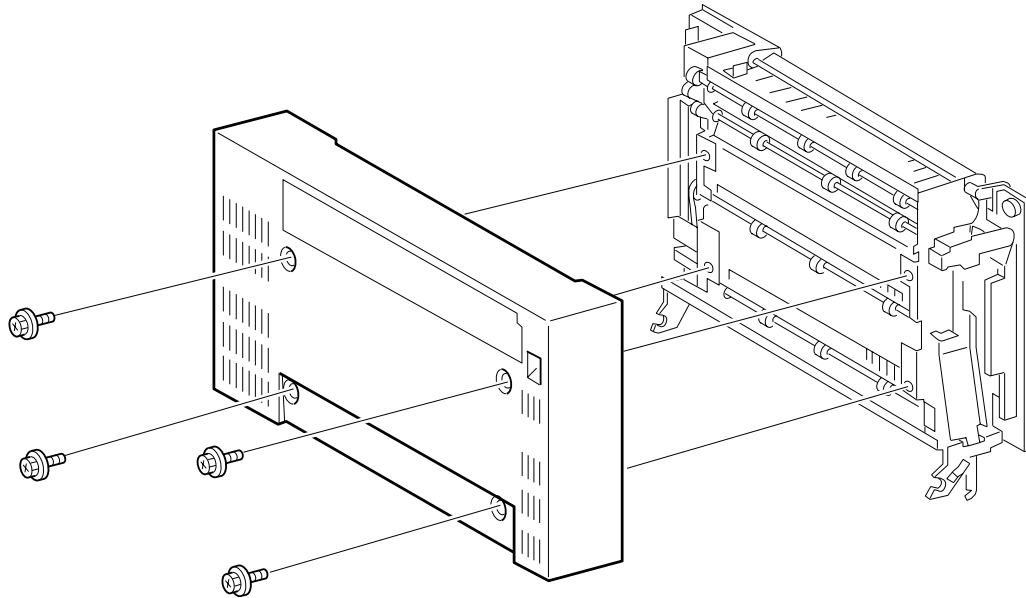
Removal

1. Disconnect the Duplex Module interface cable from the rear of the printer.
2. Tilt the Duplex Module back so it is open half way.
3. Unhook the Support Cable from the printer frame.
4. Support the Duplex Module with your left hand.
5. Close the Module just enough so you can release the metal arm that runs from the Unit to the metal stud on the Front MSI Support (see the inset in the illustration).
6. Open the Duplex Module all the way and lift it up to remove it from the printer.

Replacement

1. Hold the Duplex Module so the front of the Unit is facing down and the metal hinges facing the printer.
2. Slip both the front and rear hinges onto the metal studs on the Front and Rear MSI Supports.
3. Support the Duplex Module with your left hand.
4. Close the Module just enough so you can hook the metal arm that runs from the Unit to the metal stud on the Front MSI Support.
5. Hook the Support Cable to the printer frame.
6. Close the Duplex Module.
7. Reconnect the Duplex Module interface cable to the rear of the printer.

RRP 12.2 Duplex Cover (PL14.1)



SER238F

SER238F

RRP 12.2 Duplex Cover (PL 14.1)

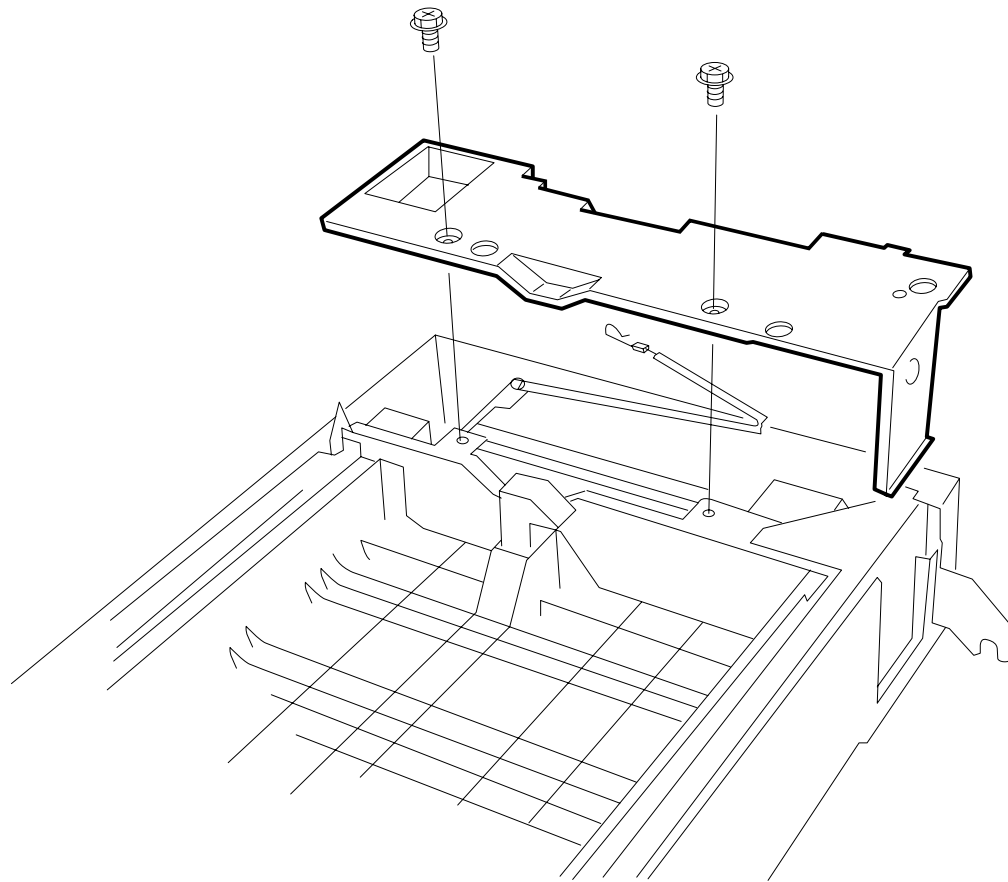
Removal

1. If the Face Up Output Tray is installed, remove the two knurled screws securing the Tray to the Cover, and remove the Tray.
2. Remove the Duplex Assembly (RRP12.1).
3. Place the Assembly on a flat and stable surface.
4. Remove the four screws securing the Duplex Cover to the Assembly, and remove the Cover.

Replacement

1. Place the Assembly, feed wheels up, on a flat and stable surface.
2. Reinstall the Duplex Cover over the Duplex Assembly, and use four screws to it to the Assembly.
3. Reinstall the Duplex Module onto the printer. (RRP 12.1).
4. If a Face Up Output Tray is installed then reinstall the Tray onto the Cover and use two knurled screws to secure it to the Cover.

RRP 12.3 Duplex Rear Cover (PL14.1)



SER368FA

SER368FA

RRP 12.3 Duplex Rear Cover (PL14.1)

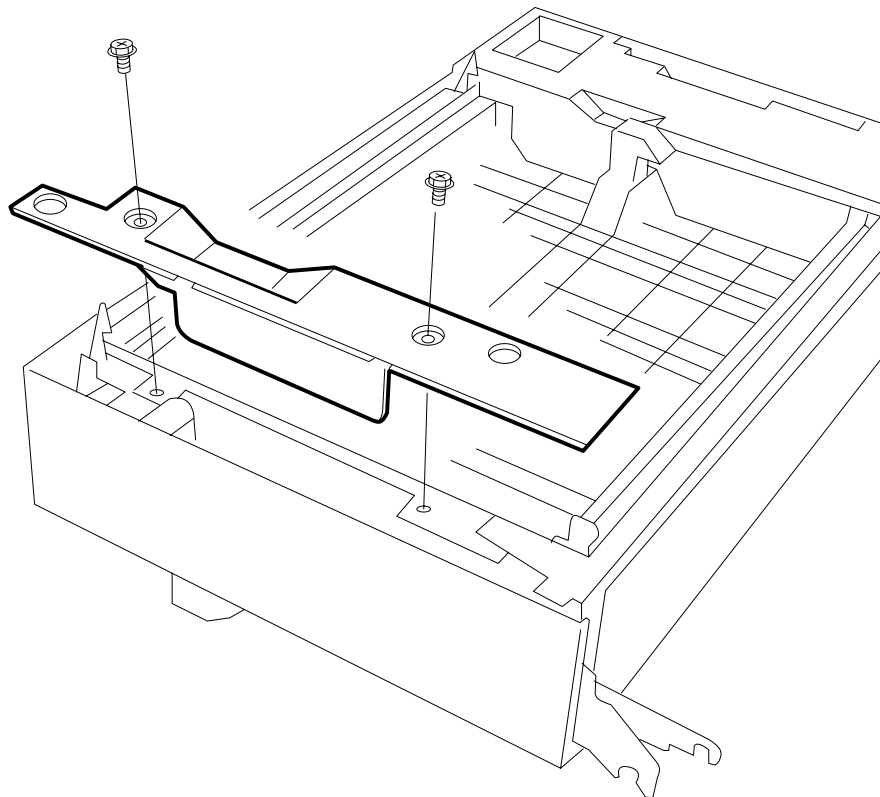
Removal

1. Remove the Duplex Cover (RRP 12.2).
2. Position the Duplex Assembly so the Inner Chute faces up.
3. Remove the two screws, shown in the figure, securing the Rear Cover to the Duplex Assembly, and remove the Cover.

Replacement

1. Position the Rear Cover over the Duplex Assembly.
2. Route the Support Cable through the cutout in the side of the Rear Cover.
3. Seat the Cover on the Duplex Assembly, and use two screws to secure the Cover.
4. Reinstall the Duplex Cover (RRP 12.2).

RRP 12.4 Duplex Front Cover (PL14.1)



SER369FA

SER369FA

RRP 12.4 Duplex Front Cover (PL14.1)

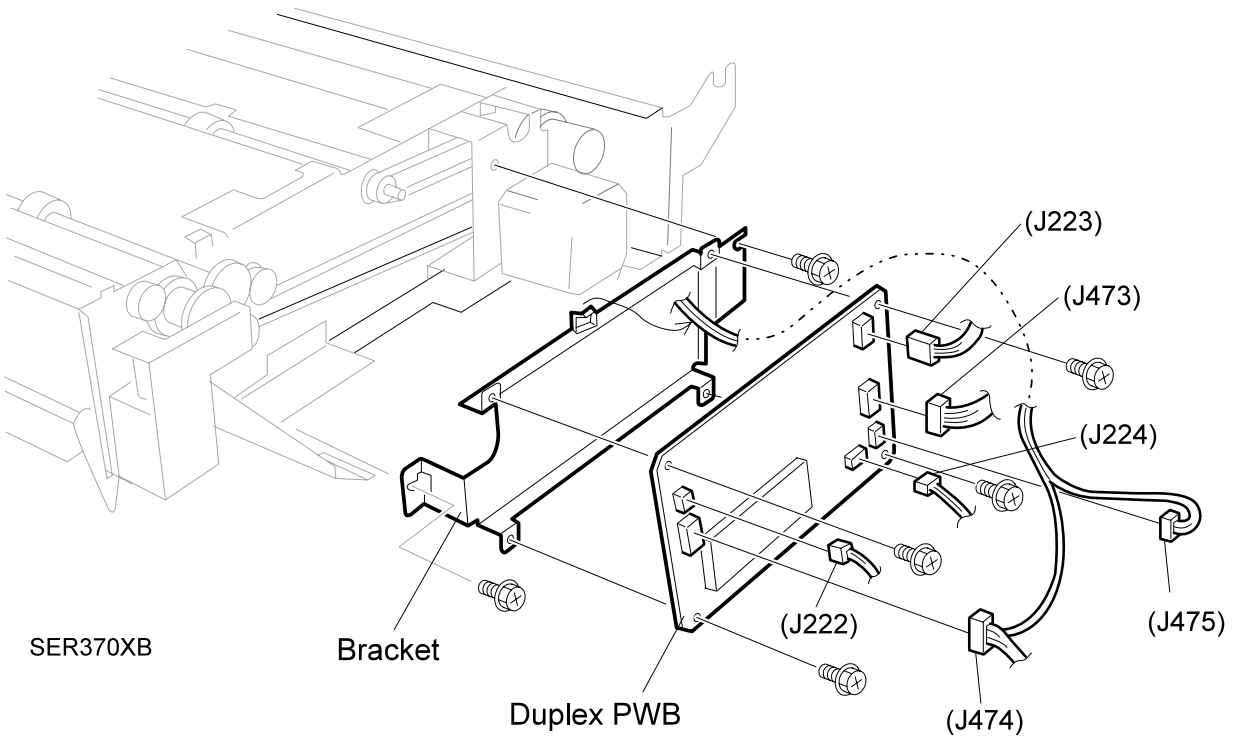
Removal

1. Remove the Duplex Cover (RRP 12.2).
2. Position the Duplex Assembly so the Inner Chute faces up.
3. Remove the two screws, shown in the figure, securing the Front Cover to the Duplex Assembly, and remove the Cover.

Replacement

1. Seat the Front Cover on the Duplex Assembly, and use two screws to secure the Cover.
2. Reinstall the Duplex Cover (RRP 12.2).

RRP 12.5 Duplex PWB and Bracket (PL14.2)



SER370XB

RRP 12.5 Duplex PWB and Bracket (PL14.2)

Removal

1. Remove the Duplex Rear Cover (RRP 12.3).
2. Disconnect the six P/Js that are connected to the Duplex PWB.
3. Remove the four screws securing the Duplex PWB to the Duplex PWB Bracket, and remove the PWB.



Wear an electrostatic wrist strap and use caution when working with the Duplex PWB. Static electricity can damage the sensitive electronics of the PWB.

Handle the Duplex PWB by the edges of the PWB. Never touch any of the ICs that are mounted on the PWB.

4. Remove the two screws securing the Bracket to the frame, and remove the Bracket.

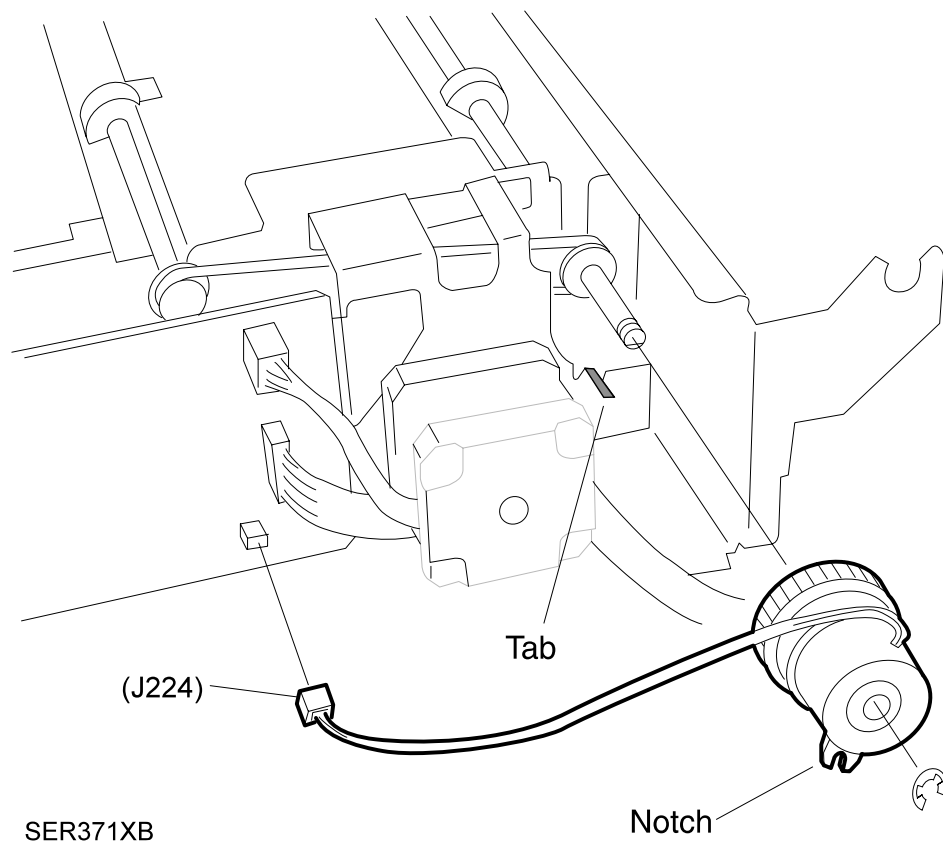
Replacement

1. Remove the Duplex Rear Cover (RRP 12.3).
2. Reinstall the PWB Bracket onto the frame, and use two screws to secure it.
3. Reinstall the Duplex PWB onto the PWB Bracket.

Position the PWB so P223 is near the Duplex Motor.

4. Use four screws to secure the PWB to the Bracket.
5. Reconnect the six P/Js to the Duplex PWB.
6. Reinstall the Duplex Rear Cover (RRP 12.3).

RRP 12.6 Duplex Wait Clutch (PL14.2)



SER371XB

RRP 12.6 Duplex Wait Clutch (PL14.2)

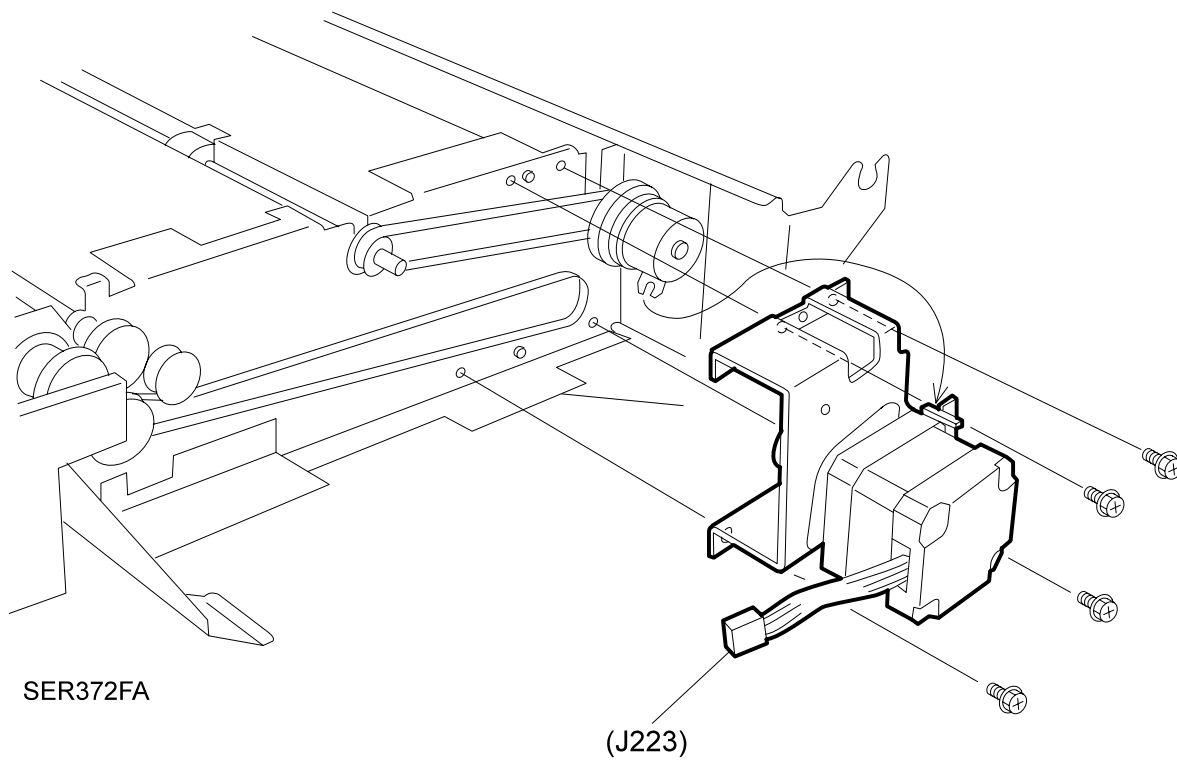
Removal

1. Remove the Duplex Rear Cover (RRP 12.3).
2. Disconnect P/J224 (Wait Clutch) from the Duplex PWB.
3. Remove the E-ring from the end of the Wait Clutch shaft.
4. Push up on the shaft latch as you slide the Clutch off of the shaft.

Replacement

1. Position the Wait Clutch so the notch in the Clutch lines up with the tab on the Duplex frame.
2. Slide the Clutch onto the shaft.
The shaft latch snaps the Clutch into place on the shaft.
3. Use an E-ring to secure the Clutch to the shaft.
4. Reconnect P/J224 to the Duplex PWB.
5. Reinstall the Duplex Rear Cover (RRP 12.3).

RRP 12.7 Duplex Drive Assembly (PL14.2)



SER372FA

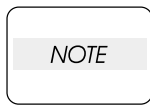
RRP 12.7 Duplex Drive Assembly (PL14.2)

Removal

1. Remove the Duplex Rear Cover (RRP 12.3).
2. Remove the Duplex PWB and Bracket (RRP 12.5).
3. Remove the four screws securing the Duplex Drive Assembly to the Duplex frame, and remove the Assembly.

Replacement

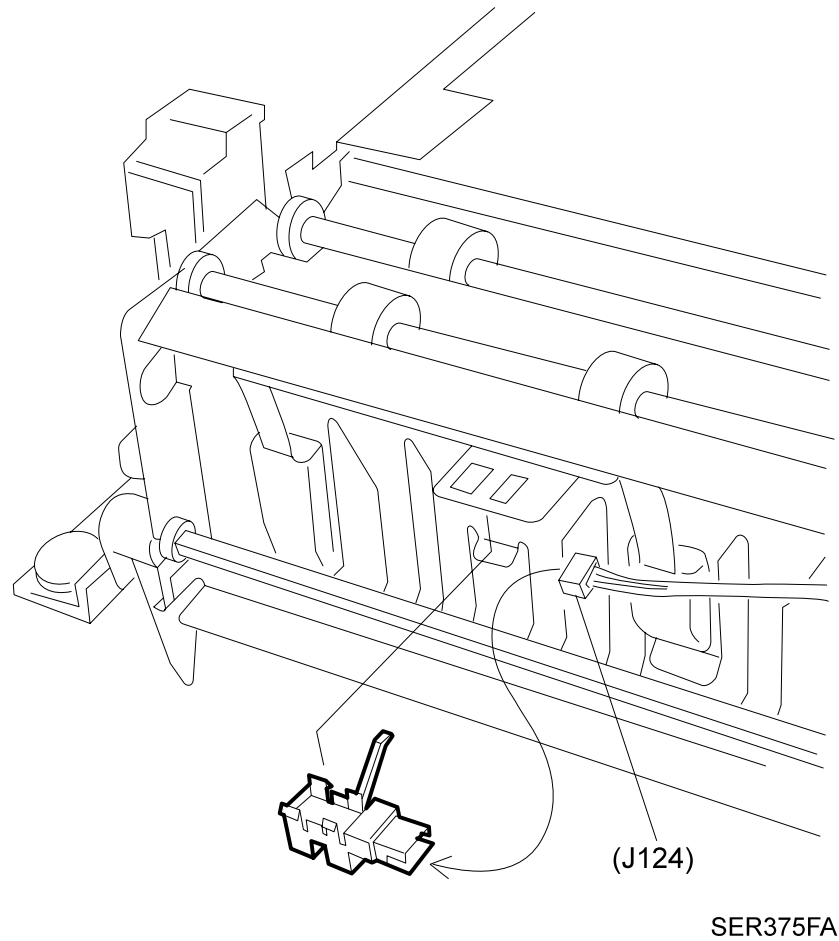
1. Reinstall the Drive Assembly onto the Duplex frame.
2. Slip the Drive Belt onto the Motor Gear.
3. Align the four screw holes in the Duplex Drive Assembly with the four screw holes in the frame.



Make sure you align the Notch on the Wait Clutch with the Tab on the Drive Assembly (see RRP 12.6).

4. Use four screws to secure the Drive Assembly to the Duplex frame.
5. Reinstall the Duplex PWB and Bracket (RRP 12.5).
6. Reinstall the Duplex Rear Cover (RRP 12.3).

RRP 12.8 Duplex Exit Sensor (PL14.3)



SER375FA

RRP 12.8 Duplex Exit Sensor (PL14.3)

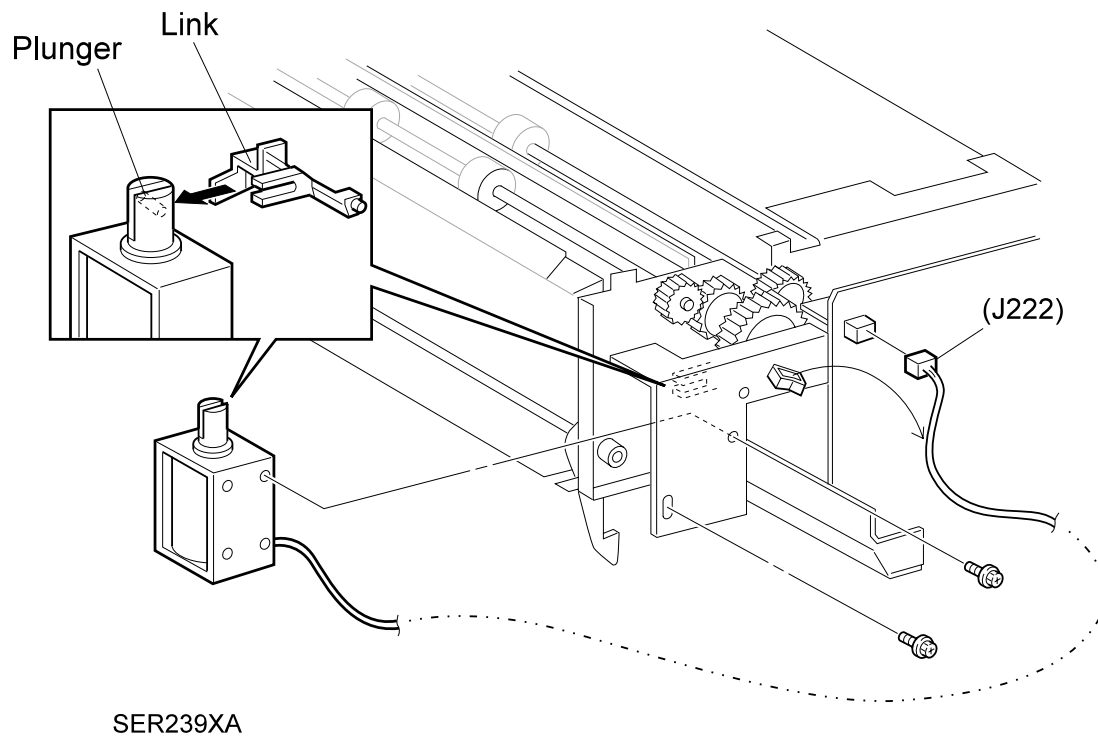
Removal

1. Remove the Duplex Cover (RRP 12.2).
2. Squeeze the four latches securing the Sensor to the bracket on the Upper Chute and remove the Duplex Exit Sensor.
3. Disconnect P/J 124 from the Sensor.

Replacement

1. Remove the Duplex Cover (RRP 12.2).
2. Position the Duplex Exit Sensor so the P/J is facing the wire harness.
3. Insert the Sensor actuator through the opening in the Upper Chute.
4. Press the four latches on the bottom of the Sensor into the four openings in the bracket on the Upper Chute.
The Sensor snaps into place.
5. Reconnect P/J 124 to the Sensor.
6. Reinstall the Duplex Cover (RRP 12.2).

RRP 12.9 Duplex Exit Gate Solenoid (PL14.3)



SER239XA

RRP 12.9 Duplex Exit Gate Solenoid (PL14.3)

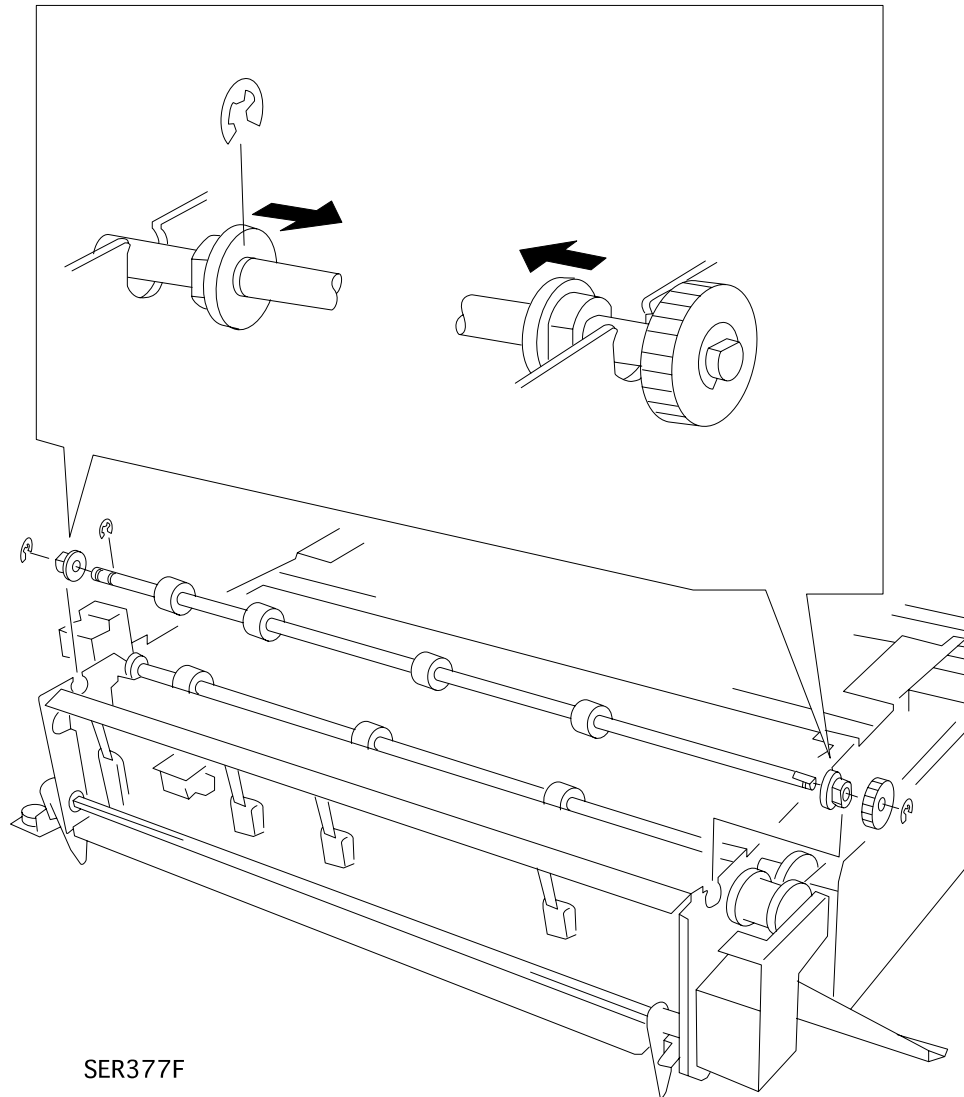
Removal

1. Remove the Duplex Cover (RRP 12.2).
2. Remove the Duplex Rear Cover (RRP 12.3).
3. Disconnect P/J 222 from the Duplex PWB.
4. Remove the wire harnesses from the wire clip that is mounted on the Solenoid Bracket.
5. Remove the two screws securing the Duplex Exit Gate Solenoid Bracket to the Duplex frame, and remove the Bracket and attached Solenoid.
6. Remove the two screws securing the Duplex Exit Gate Solenoid from the Bracket, and remove the Solenoid.

Replacement

1. Reinstall the Duplex Exit Gate Solenoid onto the Bracket.
2. Line up the two screw holes in the Bracket with the two screw holes in the Solenoid, and use two short screws to secure the Solenoid to the Bracket.
3. Make sure the Exit Gate Link is in place.
4. Rotate the Solenoid plunger so the fork in the Link slips through the slot in the plunger.
5. Press the Solenoid Bracket against the Duplex frame.
6. Use two screws to secure the Bracket to the frame.
7. Lift and release the Solenoid plunger to make sure it opens the Link correctly.
8. Reconnect P/J 222 to the Duplex PWB.
9. Reroute the wire harness through the wire clip located on the Solenoid Bracket.
10. Reinstall the Duplex Rear Cover (RRP 12.3).
11. Reinstall the Duplex Cover (RRP 12.2).

RRP 12.10 Exit Roll (PL14.4)



SER377F

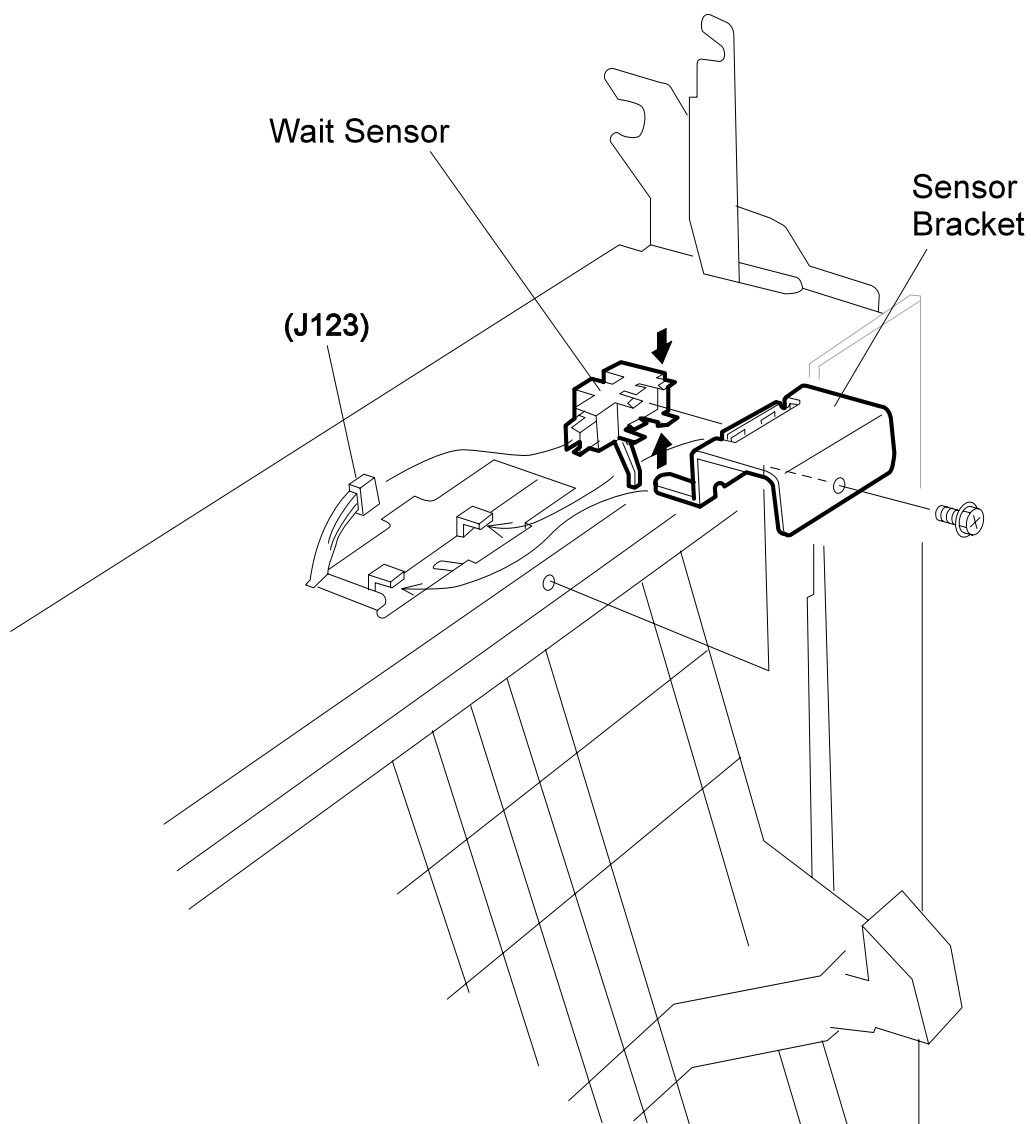
Removal

1. Remove the Duplex Cover (RRP 12.2).
2. Remove the E-ring securing the Rear end of the Exit Roll shaft to the Duplex frame.
3. Remove the E-ring securing the Front end of the Exit Roll shaft to the Duplex frame.
4. Slide both bearings toward the center of the shaft, and lift the Exit Roll shaft out of the Duplex frame.
5. Remove the E-ring securing the Exit Roll Gear to the shaft, and remove the Gear.
6. Remove the two bearings from the shaft.

Replacement

1. Slide the two bearings, lip facing to the center of the shaft, onto the Exit Roll shaft.
2. Reinstall the Exit Roll Gear to the end of the shaft, and use an E-ring to secure it.
3. Reinstall the Exit Roll shaft, the Gear at the Rear of the Duplex Assembly, into the slot in the Duplex frame.
4. Slide the shaft so the rubber rollers drop into the cutouts in the Duplex Assembly.
5. Slide the bearings along the shaft and into the cutouts in the Assembly.
6. Rotate the bearings so they fit into the cutouts.
7. Use E-rings at the Front and Rear ends of the Exit Roll shaft to secure the bearings.
8. Reinstall the Duplex Cover (RRP 12.2).

RRP 12.11 Duplex Wait Sensor (PL14.4)



SER378XC

SER378XC

RRP 12.11 Duplex Wait Sensor (PL14.4)

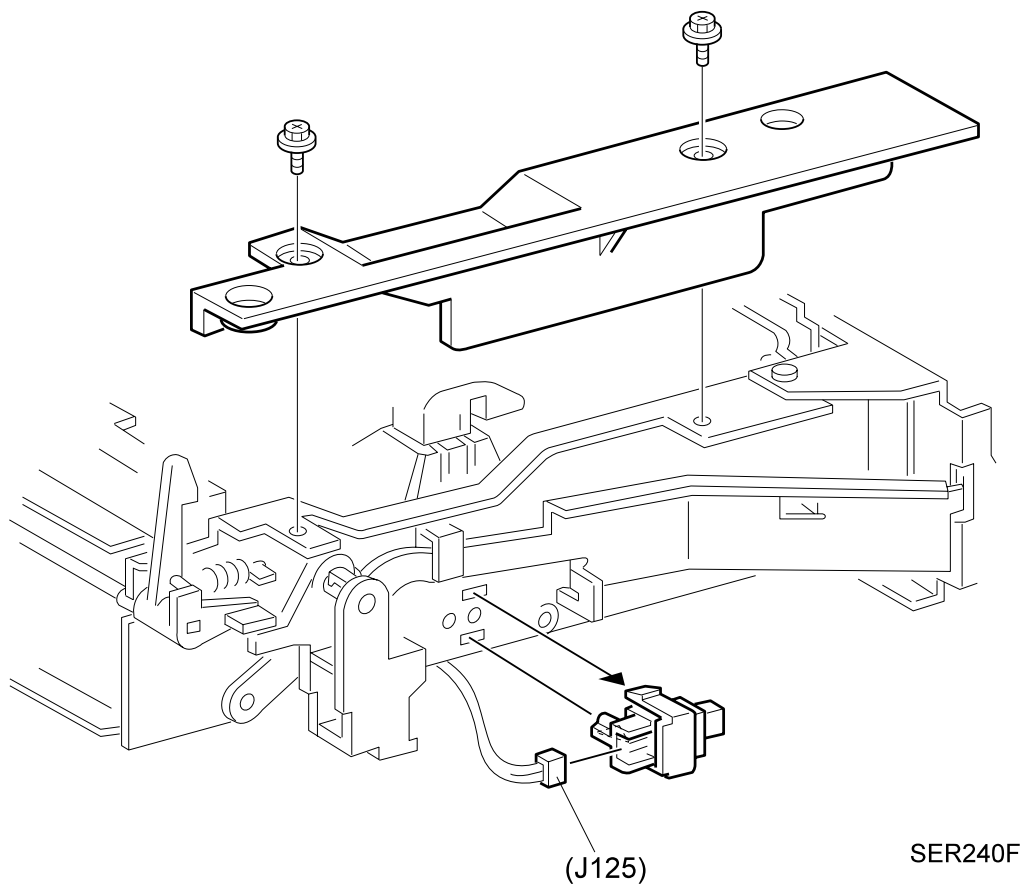
Removal

1. Remove the Duplex Cover (RRP 12.2).
2. Remove the screw securing the Wait Sensor Bracket to the Duplex frame.
3. Remove the Bracket and the attached Wait Sensor.
4. Disconnect P/J 123 from the Sensor.
5. Squeeze the four latches securing the Sensor to the bracket and remove the Sensor.

Replacement

1. Position the Sensor on the Bracket so the Sensor latches match the openings in the Bracket.
2. Press the four latches on the bottom of the Sensor into the four openings in the Bracket.
The Sensor snaps into place.
3. Reconnect P/J 123 to the Sensor.
4. Slide the Sensor actuator through the slot in the Duplex Module, and slide the two arms of the Sensor Bracket under the two tabs next to the actuator slot.
5. Use one screw to secure the Bracket to the Duplex Module.
6. Reinstall the Duplex Cover (RRP 12.2).

RRP 12.12 Duplex Interlock Switch (PL14.4)



SER240F

RRP 12.12 Duplex Interlock Switch (PL14.4)

Removal

1. Remove the Duplex Cover (RRP 12.2).
2. Remove the Duplex Front Cover (RRP 12.4).
3. Disconnect P/J 125 from the Interlock Switch.
4. Squeeze the sides of the Switch together to release the two latches securing the Duplex Interlock Switch to the Duplex frame, and remove the Switch.

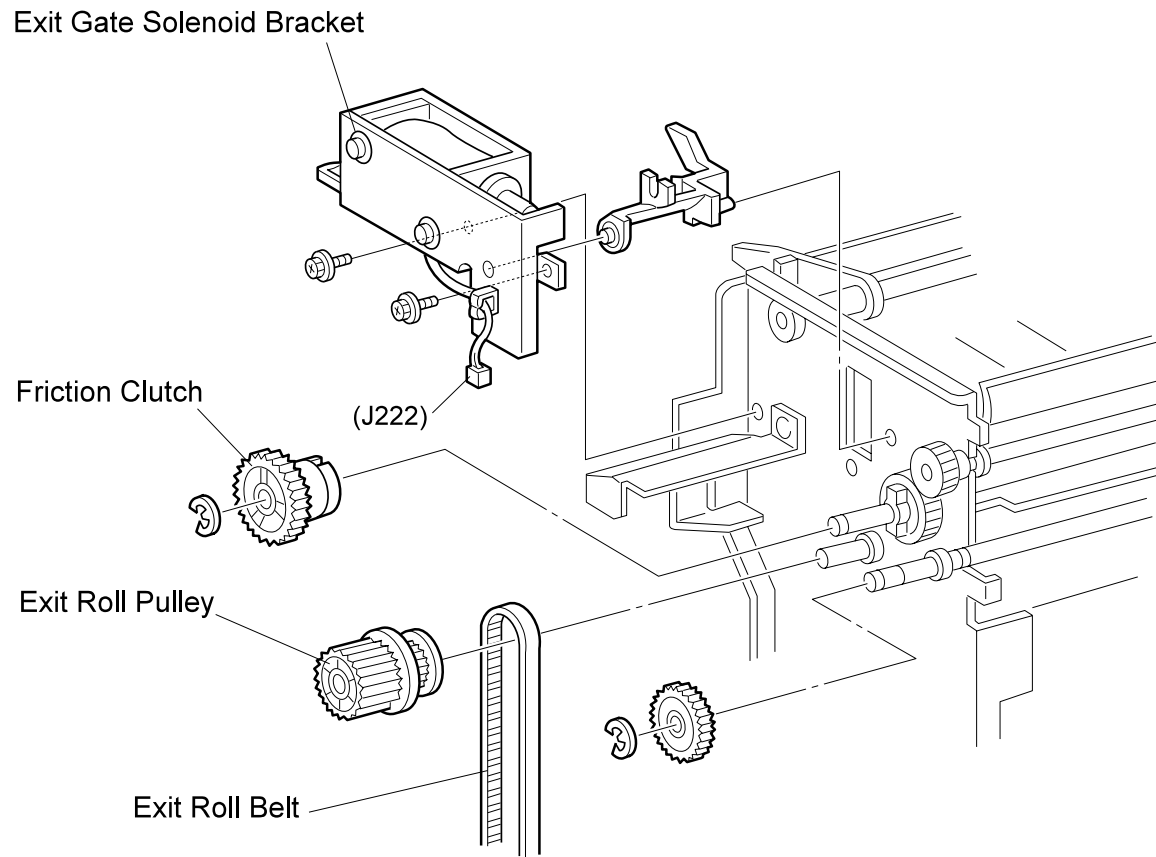
Replacement

1. Position the Interlock Switch as shown in the figure.
2. Insert the two locating tabs of the Switch into the two corresponding holes in the Duplex frame.
3. Press the Switch into the frame.

The Switch snaps into place.

4. Reconnect P/J 125 to the Interlock Switch.
5. Reinstall the Duplex Front Cover (RRP 12.4).
6. Reinstall the Duplex Cover (RRP 12.2).

RRP 12.13 Exit Roll Belt (PL14.4)



SER241XA

SER241XA

RRP 12.13 Exit Roll Belt (PL14.4)

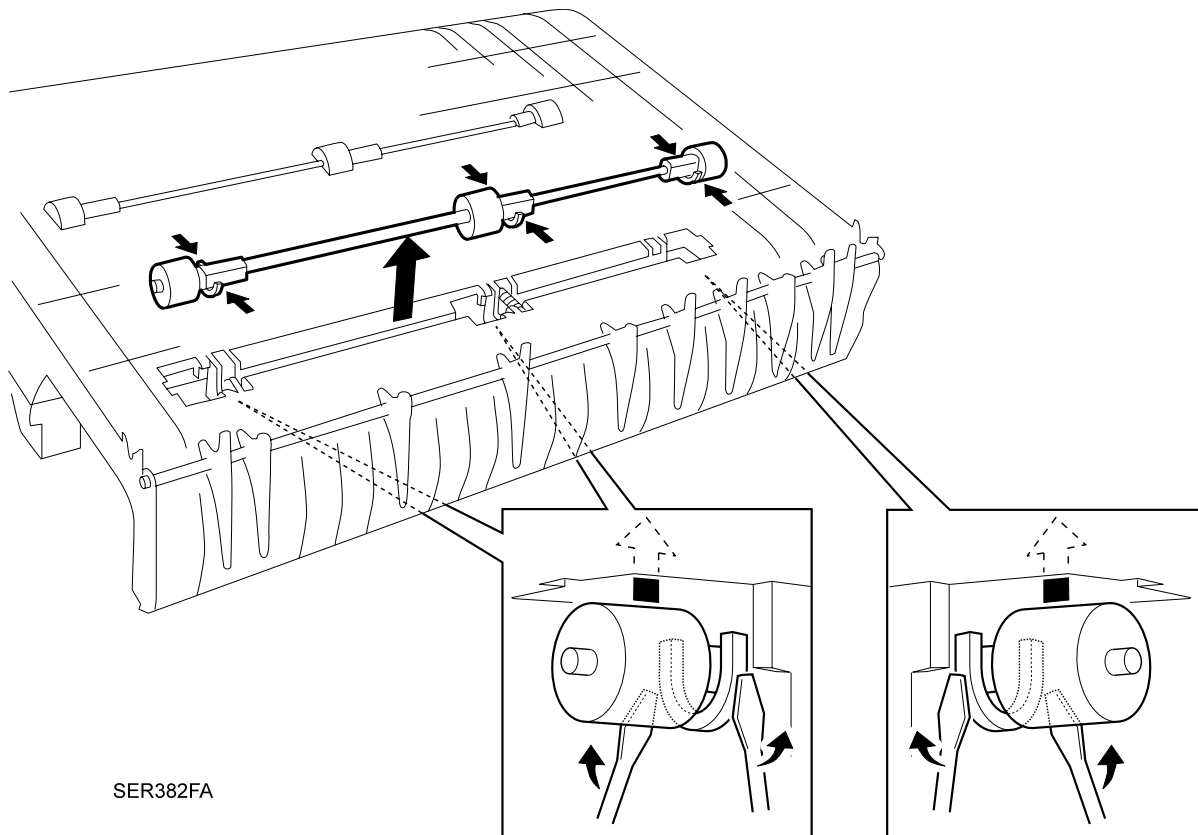
Removal

1. Remove the Duplex PWB Bracket (RRP 12.5).
2. Remove the Duplex Drive Assembly (RRP 12.7).
3. Remove the two screws securing the Exit Gate Solenoid Bracket to the frame and remove the Bracket and Solenoid (RRP 12.9).
4. Remove the E-ring from the #1 Transport Roll Drive Gear, and slide the Gear off of the shaft.
5. Remove the E-ring from the Friction Clutch, and slide the Clutch off of the shaft.
6. Slide the Exit Roll Pulley off of the shaft and remove the Exit Roll Belt.

Replacement

1. Reinstall one end of the Exit Roll Belt over the small end of the Exit Roll Pulley.
2. Slide the Exit Roll Pulley onto the Exit Roll shaft.
3. Slide the Friction Clutch onto the shaft and use an E-ring to secure it to the shaft.
4. Slide the #1 Transport Roll Drive Gear onto the Transport Roll shaft and use an E-ring to secure it to the shaft.
5. Reinstall the Exit Gate Solenoid Assembly and Bracket onto the frame, and use two screws to secure the Bracket.
6. Reinstall the Duplex Drive Assembly (RRP 12.7).
7. Reinstall the Duplex PWB Bracket (RRP 12.5).

RRP 12.14 Duplex Pinch Roll (PL14.5)



SER382FA

RRP 12.14 Duplex Pinch Roll (PL14.5)

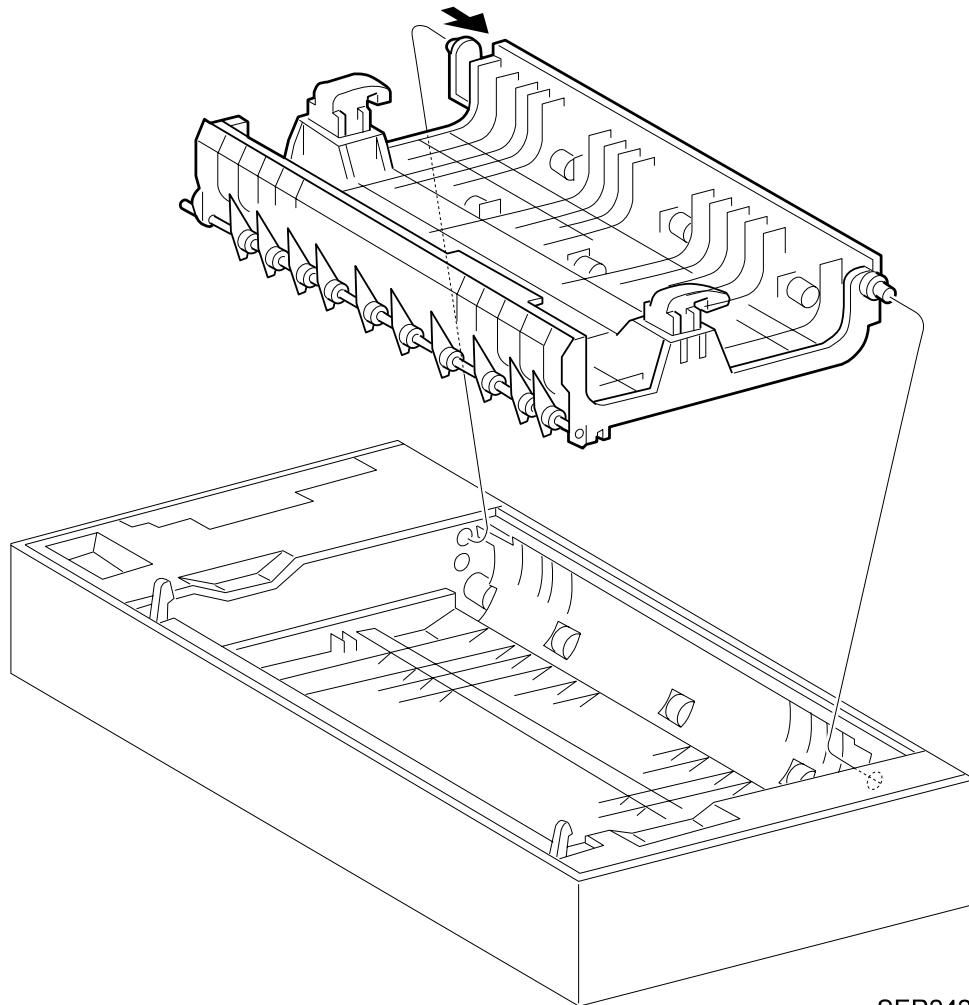
Removal

1. Remove the Duplex Module Assembly (RRP 12.1).
2. Open the Inner Chute.
3. Working from the front of the Chute, use the flat blade of a screwdriver to carefully free the arms of the roll latch from the Inner Chute (see the figure), while pressing out on the rubber roll
4. Repeat step 3 for each of the remaining two rubber rolls on shaft.
5. Remove the Pinch Roll from the Inner Chute.
6. Repeat steps 3 through 5 and remove the other two Pinch Rolls attached to the Inner Chute.

Replacement

1. Open the Inner Chute.
2. Reinstall the Pinch Roll.
3. Rotate the three roll latches on each Pinch Roll shaft so the bow of the latches face down and the arms of the latches face up.
4. Press each latch into the Inner Chute until they snap into place.
5. Rotate the Pinch Roll to make sure it rotates smoothly.
6. Press and release the Pinch Roll to make sure it has a spring-action return.
7. Repeat steps 2 through 6 for each of the other two Pinch Rolls.
8. Close the Inner Chute.
9. Reinstall the Duplex Module Assembly (RRP 12.1).

RRP 12.15 Inner Chute Assembly (PL14.5)



SER242F

SER242F

RRP 12.15 Inner Chute Assembly (PL14.5)

Removal

1. Remove the Duplex Module Assembly (RRP 12.1).
2. Open the Inner Chute.
3. Use the flat blade of a screwdriver to pry (arrow in the figure) the rear hinge of the Inner Chute out of hole in the Duplex frame.
4. Remove the Inner Chute.

Replacement

1. Position the Inner Chute as shown in the figure.
2. Insert the front hinge of the Chute into the hole in the Duplex frame.
3. Push in on the rear hinge and insert it into the hole in the frame.
4. Open and close the Chute to make sure it moves freely.
5. Reinstall the Duplex Module Assembly (RRP 12.1).

Section 6 - Locating P/J Connectors

Use the table and map in this section to locate specific P/J connectors within the Duplex Module.

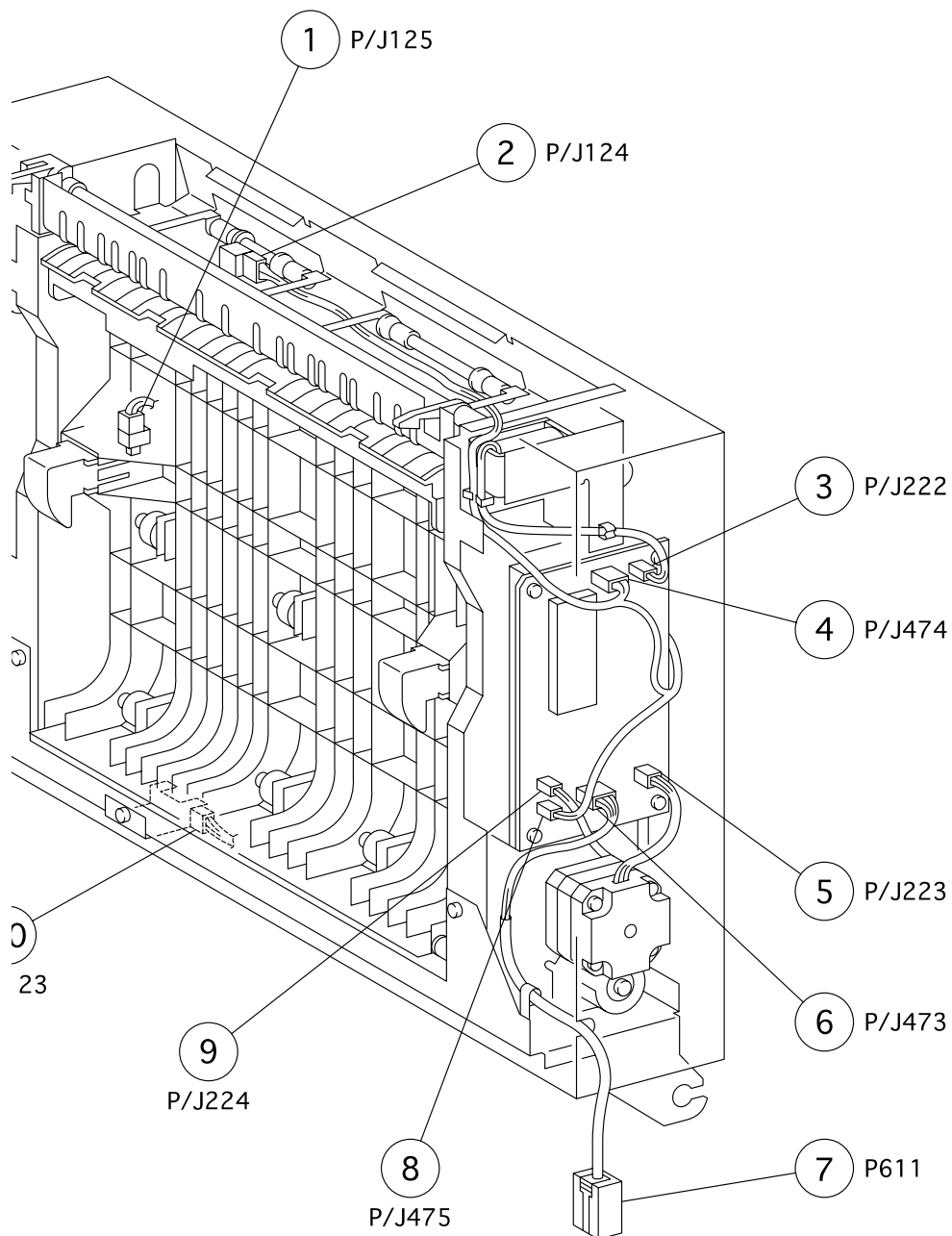
To find the location of a P/J:

1. Locate the P/J connector number in the first column of the table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. Go to the map (M1) number and locate item number (5).

P/J Location Table

P/J	Map & Number	Connected to...	Other end connected to...
123	M1-10	Wait Sensor	P475 Duplex PWB
124	M1-2	Exit Sensor	P474 Duplex PWB
125	M1-1	Duplex Interlock Switch	P474 Duplex PWB
222	M1-3	Duplex PWB	Exit Sensor
223	M1-5	Duplex PWB	Duplex Motor
224	M1-9	Duplex PWB	Wait Clutch
473	M1-6	Duplex PWB	P611 Duplex Interface Cable then to P404 MCU PWB
474	M1-4	Duplex PWB	J125 Duplex Interlock Switch and J124 Exit Sensor
475	M1-8	Duplex PWB	J123 Wait Sensor
611	M1-7	Duplex Interface Cable	P473 Duplex PWB

P/J Location Map 1

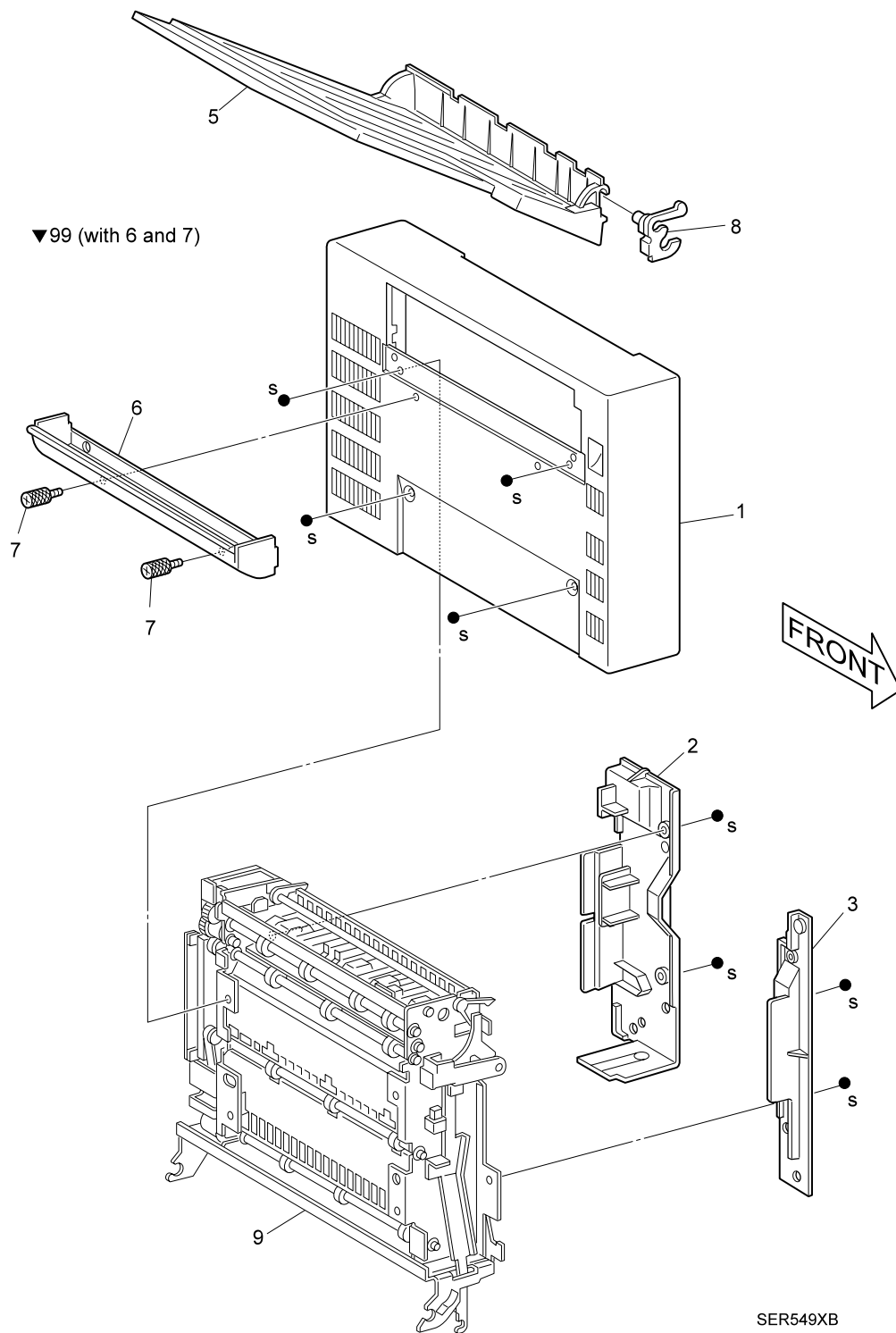


Section 7 - PL14 Duplex Module Parts List

Using the Parts List

1. The numbers shown in each illustration correspond to the parts list number for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL3.12 means the part is item 12 of parts list 3.
3. The capital letters “C”, “E”, “KL”, and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle $\triangle$ in an illustration indicates the item is part of an assembly.
5. The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.
6. The symbol \$ following a part name indicates the part is an FX Recommended Part and is constantly stocked and readily available. Other parts may be stocked according to the needs of each individual OEM client.
7. An asterisk * following a part name indicates the page contains a note about this part.
8. The notation “**J1<>J2 and P2**” is attached to a wire harness. It indicates that connector jack 1 is attached to one end of the wire harness and connector jack 2 is attached to the other end that is plugged into plug 2.
9. An RRP number appears at the end of a part line if the technical manual contains a removal and replacement procedure for that part or module.

PL14.1 Duplex Cover and Duplex Assembly

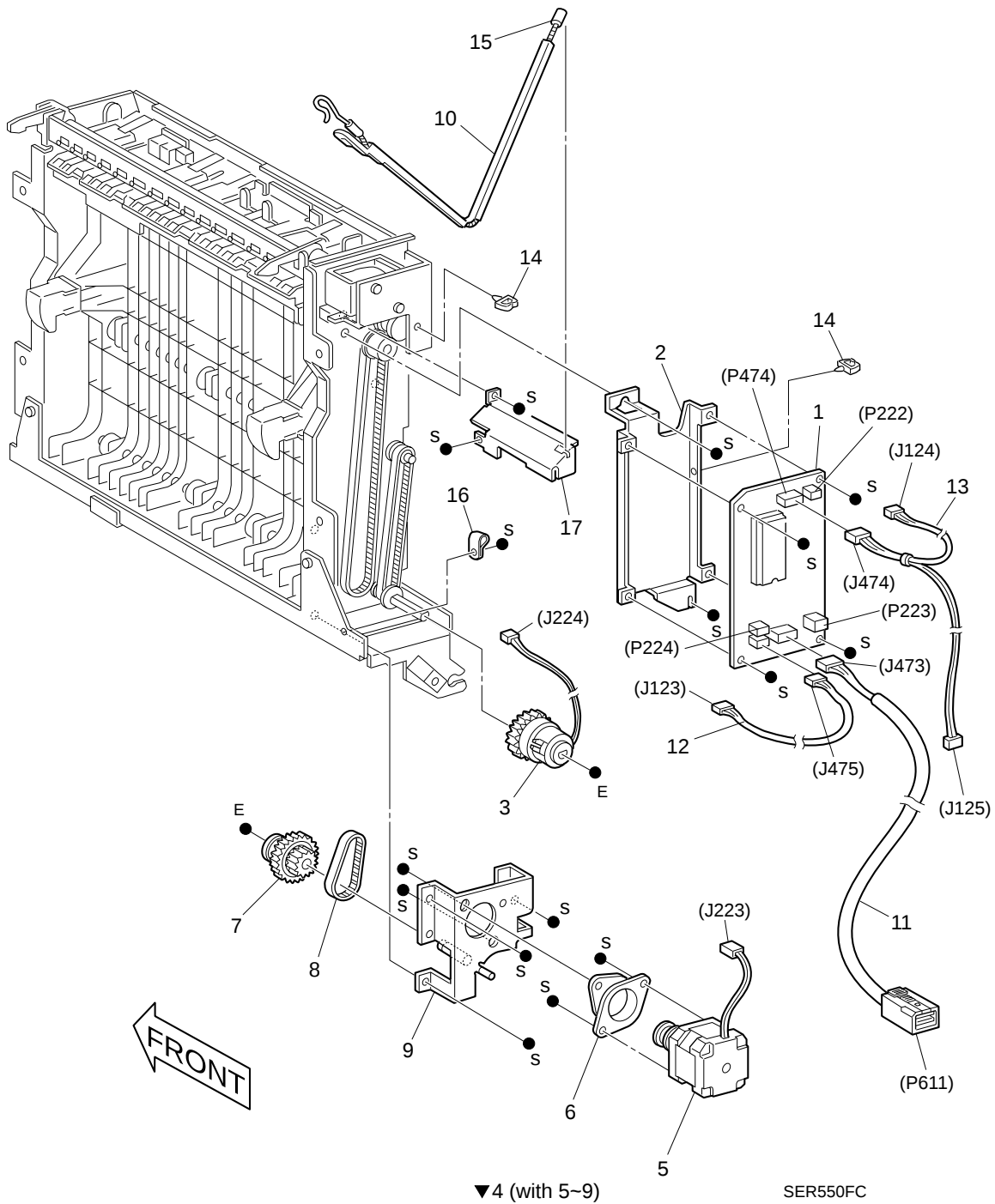


SER549XB

PL14.1 Duplex Cover and Duplex Assembly

1. DUPLEX COVER	P/N 865048K61941
2. DUPLEX REAR COVER	P/N 865048E36010
3. DUPLEX FRONT COVER.....	P/N 865048K59840
4. DUPLEX ASEEMBLY	P/N 865600K61630
5. FACE UP TRAY	P/N 865097K33180
6. TRAY COVER	N/A
7. TRAY COVER KNURLED SCREW.....	N/A
8. TRAY LINK ASSEMBLY	P/N 865031K92370
9. DUPLEX ASSEMBLY (PL14.2, PL14.3, PL14.4, and PL14.5).....	N/A
10. KIT TRAY COVER DUPLEX (with 6 and 7)	P/N 865600K61021

PL14.2 Duplex Drive

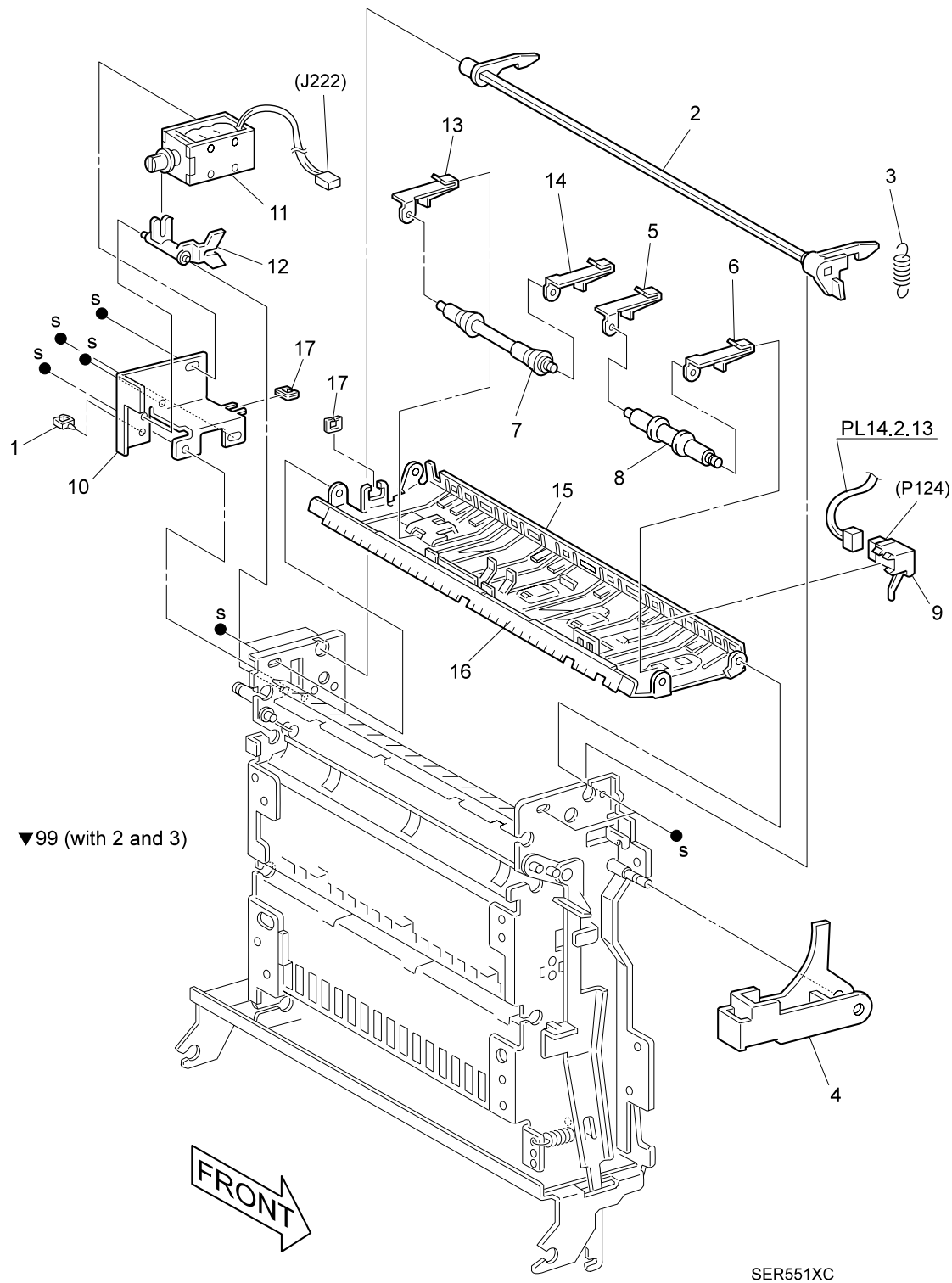


SER550FC

PL14.2 Duplex Drive

1. DUPLEX PWB	P/N 865160K34453
2. DUPLEX PWB BRACKET	N/A
3. DUPLEX WAIT CLUTCH (J224)	P/N 865121K84001
4. DUPLEX DRIVE ASSEMBLY (with 5 ~ 9).....	P/N 865127K19090
5. DUPLEX MOTOR (J223)	N/A
6. DAMPER.....	N/A
7. GEAR (24T/30T/22T)	N/A
8. BELT	N/A
9. BRACKET	N/A
10. DUPLEX SUPPORT WIRE	P/N 865049E74600
11. BASE ENGINE CONNECTOR HARNESS (J473 <> P611).....	P/N 865162K30660
12. WAIT SENSOR HARNESS (J475 <> J123).....	N/A
13. INTERLOCK & EXIT SENSOR HARNESS (J474 <> J124/J125).....	N/A
14. CABLE CLAMP A.....	N/A
15. SUPPORT WIRE	N/A
16. CABLE CLAMP B	N/A
17. DUPLEX DRIVE BRACKET	N/A

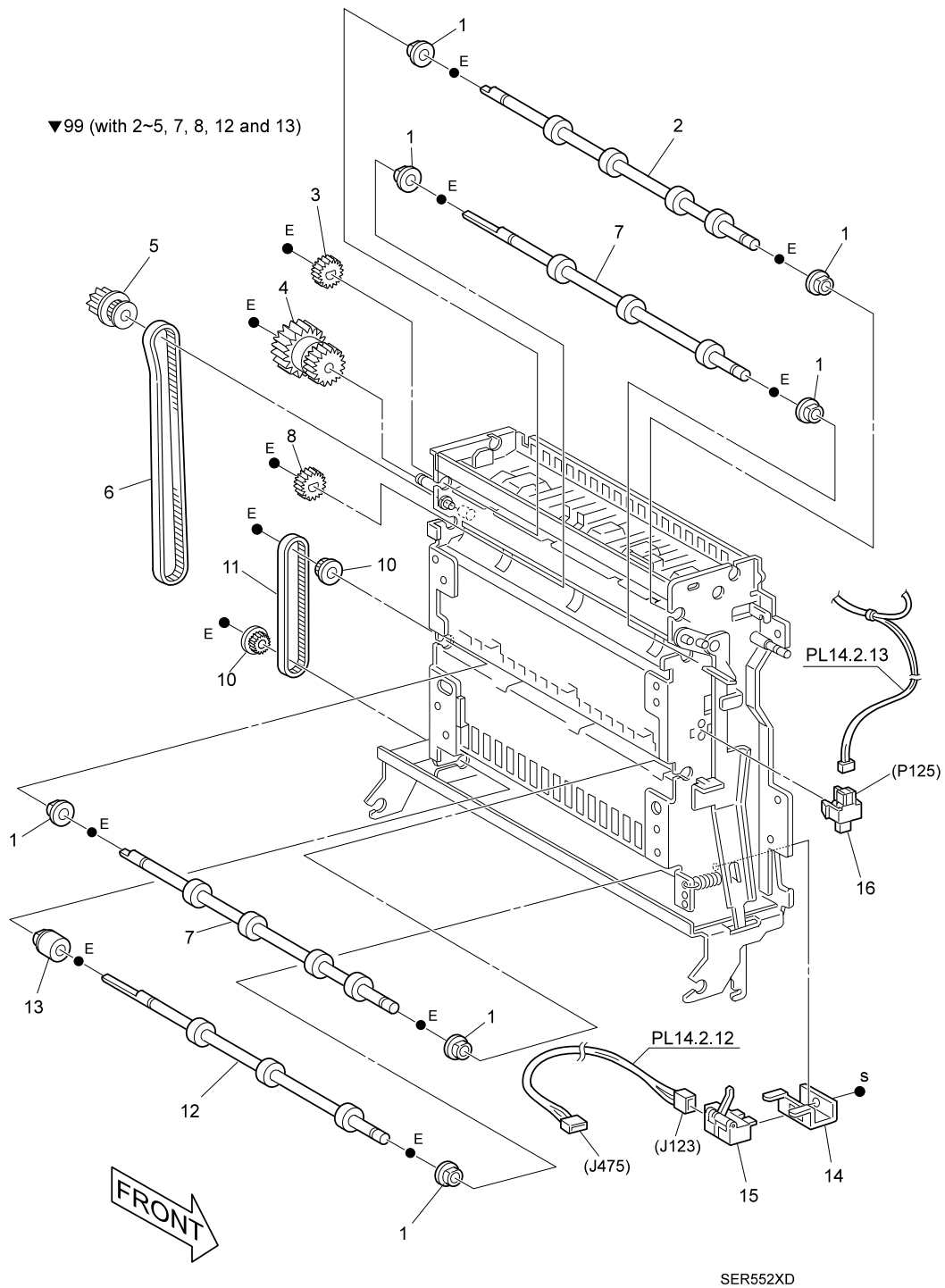
PL14.3 Duplex Upper Chute



PL14.3 Duplex Upper Chute

1. SADDLE A.....	N/A
2. LATCH ASSEMBLY.....	N/A
3. DUPLEX LATCH SPRING.....	N/A
4. DUPLEX HANDLE	N/A
5. FRONT PINCH ROLLER SPRING ASSEMBLY REAR.....	N/A
6. FRONT PINCH ROLLER SPRING ASSEMBLY FRONT.....	N/A
7. DUPLEX PINCH ROLLER FRONT	N/A
8. DUPLEX PINCH ROLLER REAR	N/A
9. DUPLEX EXIT SENSOR	P/N 865130K83340
10. DUPLEX EXIT GATE SOLENOID BRACKET.....	N/A
11. DUPLEX EXIT GATE SOLENOID (J222)	N/A
12. EXIT GATE LINK.....	N/A
13. REAR PINCH ROLLER SPRING ASSEMBLY REAR	N/A
14. REAR PINCH ROLLER SPRING ASSEMBLY FRONT	N/A
15. UPPER CHUTE.....	N/A
16. ELIMINATOR	N/A
17. SADDLE B	N/A
18. KIT DUPLEX LATCH (with 2 and 3).....	P/N 865600K65600

PL14.4 Duplex Paper Transport

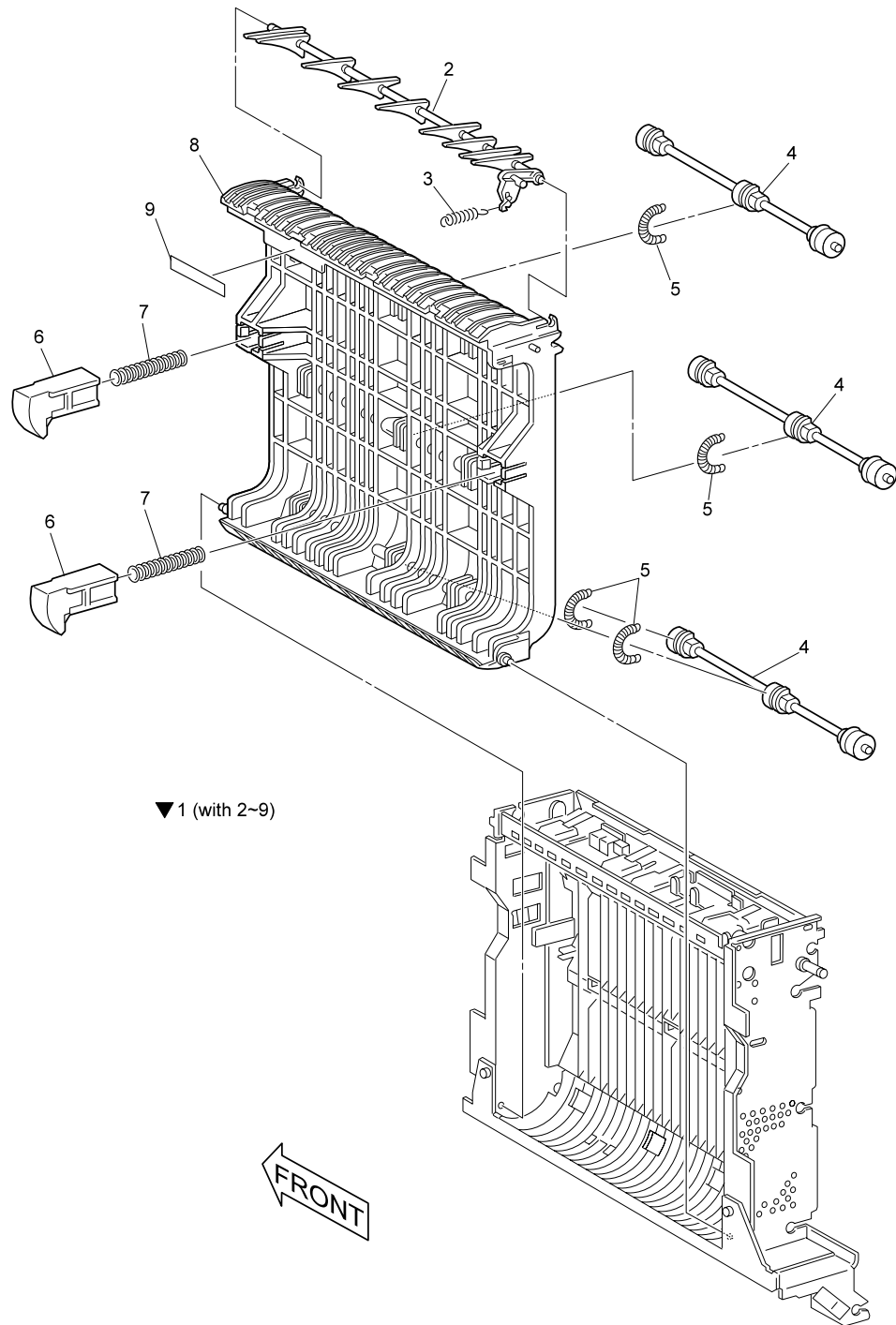


SER552XD

PL14.4 Duplex Paper Transport

1. BEARING.....	P/N 865013E80030
2. EXIT ROLLER.....	P/N 865022K46650
3. EXIT ROLLER GEAR.....	N/A
4. CLUTCH ASSEMBLY FRICTION	P/N 865005K81820
5. EXIT ROLLER PULLEY	N/A
6. EXIT ROLLER BELT	P/N 865423W00453
7. TRANSPORT ROLLER.....	P/N 865022K33940
8. #1 TRANSPORT ROLLER GEAR.....	N/A
9. N/A	
10. WAIT/TRANSPORT ROLLER PULLEY	N/A
11. #2 TRANSPORT ROLLER BELT	P/N 865423W12553
12. WAIT ROLLER	P/N 865022K33950
13. WAIT ROLLER BEARING (One Way Clutch).....	P/N 865005K81090
14. WAIT SENSOR BRACKET	N/A
15. DUPLEX WAIT SENSOR	N/A
16. DUPLEX INTERLOCK SWITCH.....	N/A
17. KIT DUPLEX TRANSPORT (2 ~ 5, 7, 8, 12, and 13)	N/A

PL14.5 Duplex Inner Chute



SER553F

SER553F

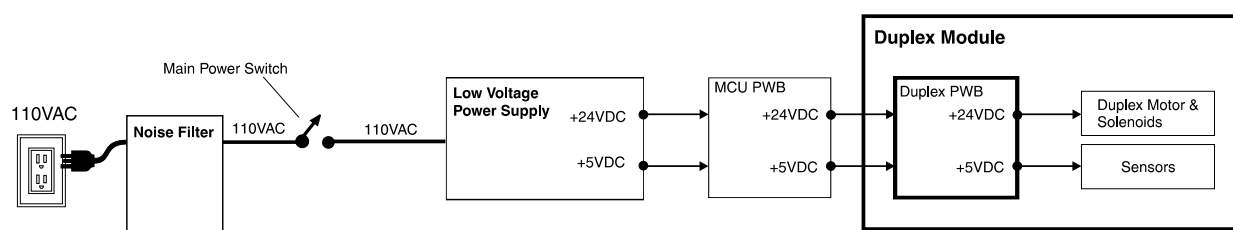
PL14.5 Duplex Inner Chute

1. INNER CHUTE ASSEMBLY (with 2 ~ 9).....	P/N 865054K08671
2. DUPLEX EXIT GATE	N/A
3. DUPLEX EXIT GATE SPRING	N/A
4. DUPLEX PINCH ROLL	N/A
5. DUPLEX LOWER PINCH ROLL SPRING.....	N/A
6. DUPLEX HOLDER	N/A
7. DUPLEX HOLDER SPRING	N/A
8. INNER CHUTE	N/A
9. LABEL HANDLE	N/A

1- Duplex Module Power

The base engine MCU PWB provides the +5VDC and +24VDC that the Duplex Module requires for operation.

The printer AC power cord plugs into a grounded AC wall outlet. The cord carries AC line voltage to the Noise Filter PWB. The Noise Filter smooths the AC voltage and sends it to the Main Power Switch. Switching on the Main Power Switch applies AC voltage to the Low Voltage Power Supply (LVPS) PWB. The LVPS converts the 110VAC to regulated +5VDC and +24VDC voltages. The LVPS sends these voltages to the MCU PWB. The MCU sends these two DC voltages to the **Duplex PWB**. The Duplex PWB uses these voltages to run internal logic, sensors, clutches, and the Duplex Motor.

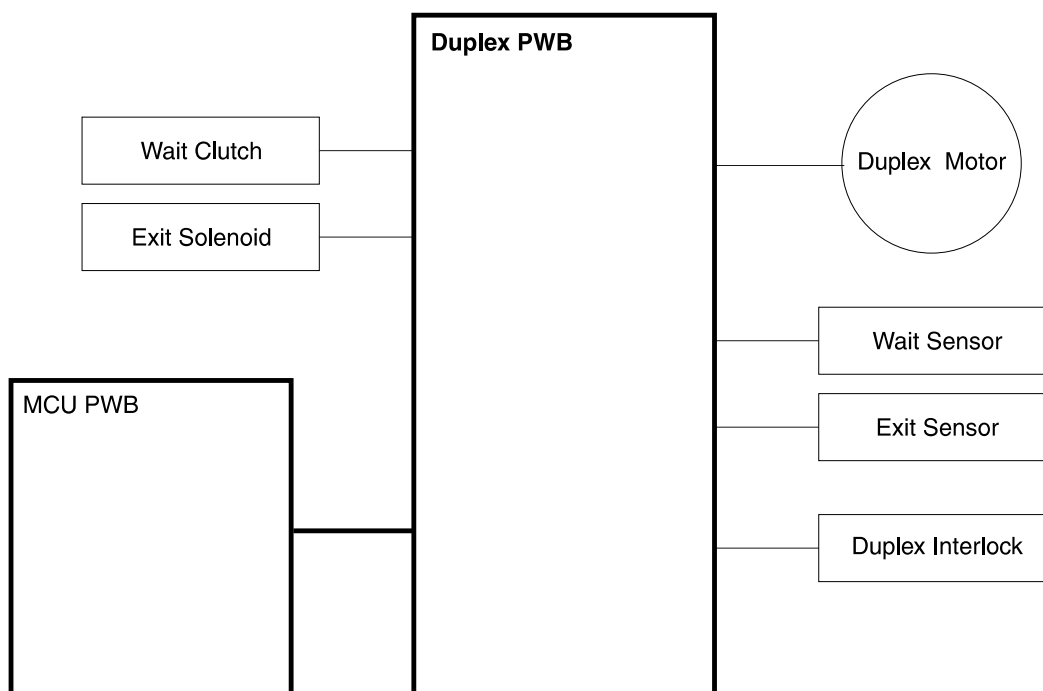


SR1350X

2- Duplex Module Control

Duplex Module Control is a broad term that is used to describe the printer resources that monitor and control the actions and operations of the printer and the Duplex Module; from paper feed to Duplex error detection.

The center of Duplex control is the Duplex PWB. The MCU PWB provides the logic and information processing that is necessary for the printer to function, and the Duplex PWB provides the logic and information processing that is necessary for the Duplex Module to function. Every electrical component within the Duplex Module is connected to the Duplex PWB. Sensors in the Duplex Module send Duplex status information to the Duplex PWB. The Duplex PWB processes that information, shares it with the MCU PWB, and compares it to timing tables stored in ROM. Acting on the results of the processing, the Duplex PWB sends commands to the various Duplex components; switching on the Motor or switching off a clutch.



SR1351XA

Duplex Module Control Components

The Duplex Module Control is made up of four major components.

1. Duplex PWB

The Duplex PWB controls all Duplex functions, executes commands sent from the MCU PWB, and sends information back to the MCU PWB.

2. Duplex Interlock Switch

Monitors whether the Duplex Module is closed (operating position) or open (not operating position).

3. Exit Sensor

Monitors paper travel out of the Duplex Module and into the Face Up Tray.

4. Wait Sensor

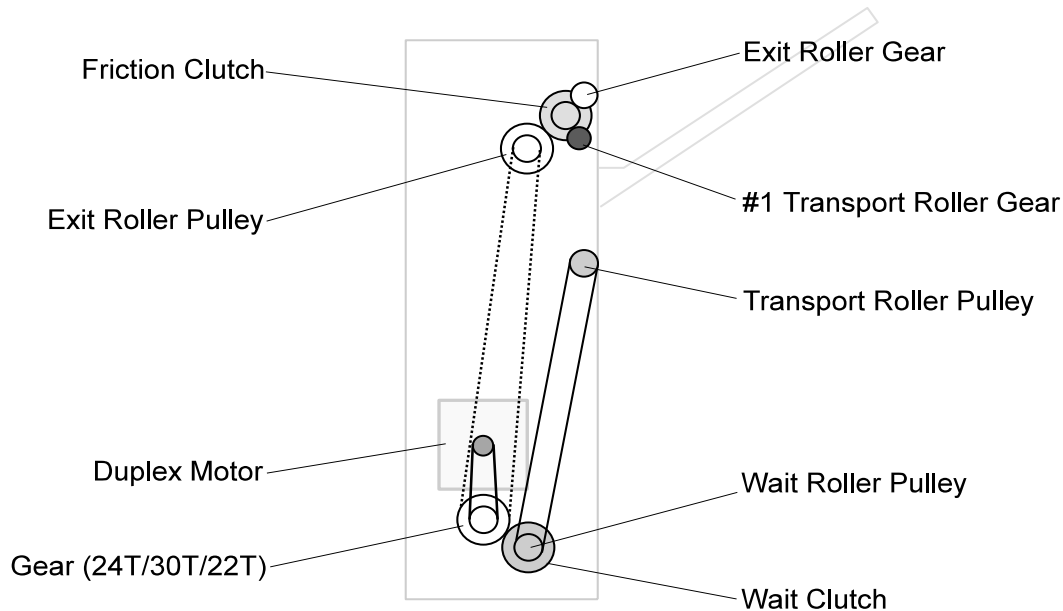
Monitors paper travel to the Wait Rolls.

3- Mechanical Drive

Mechanical Drive is a term that is used to describe both the rotation of the Duplex Motor and the action of the gears, belts, and clutches that are used to transmit and control drive to the various components throughout the Duplex Module. The primary purpose of Mechanical Drive within the Duplex Module is to provide the mechanical energy needed to drive a sheet through the Duplex Module and back into the printer registration area.

The Duplex PWB switches on the Duplex Motor. The Motor Belt drives Gear (24T/30T/22T). One end of the Exit Roll Belt is attached to Gear (24T/30T/22T) and the other end of the belt is attached to the Exit Roller Pulley. Teeth on the Exit Roller Pulley drive the Friction Clutch, which in turn drives the Exit Roller Gear and the #1 Transport Roller Gear.

Teeth on the Gear (24T/30T/22T) drive the Wait Clutch. One end of the #2 Transport Roller Belt is attached to the Wait Roller Pulley that is attached to the Wait Clutch. The other end of the belt is attached to another Transport Roller Pulley located about half way up the Duplex Module paper path. When the Duplex PWB switches on the Wait Clutch, the Clutch transmits drive from the Duplex Motor to the Wait Roller Pulley, which drives the Roller Belt, and which in turn drives the Transport Roller Pulley.



SR1352X

Duplex Module Mechanical Drive Components

The Duplex Module Mechanical Drive is made up of one major component, with numerous belts, pulleys, and clutches that transmit drive to the various Duplex Module transport rolls.

1. Duplex Motor

A +24VDC motor.

2. Wait Clutch

An electric clutch that is controlled by the Duplex PWB. Transmits drive to the Transport Roll.

3. Friction Clutch

Transmits drive to the Exit Roll and to the #1 Transport Roll.

4 - The Duplex Module Paper Path

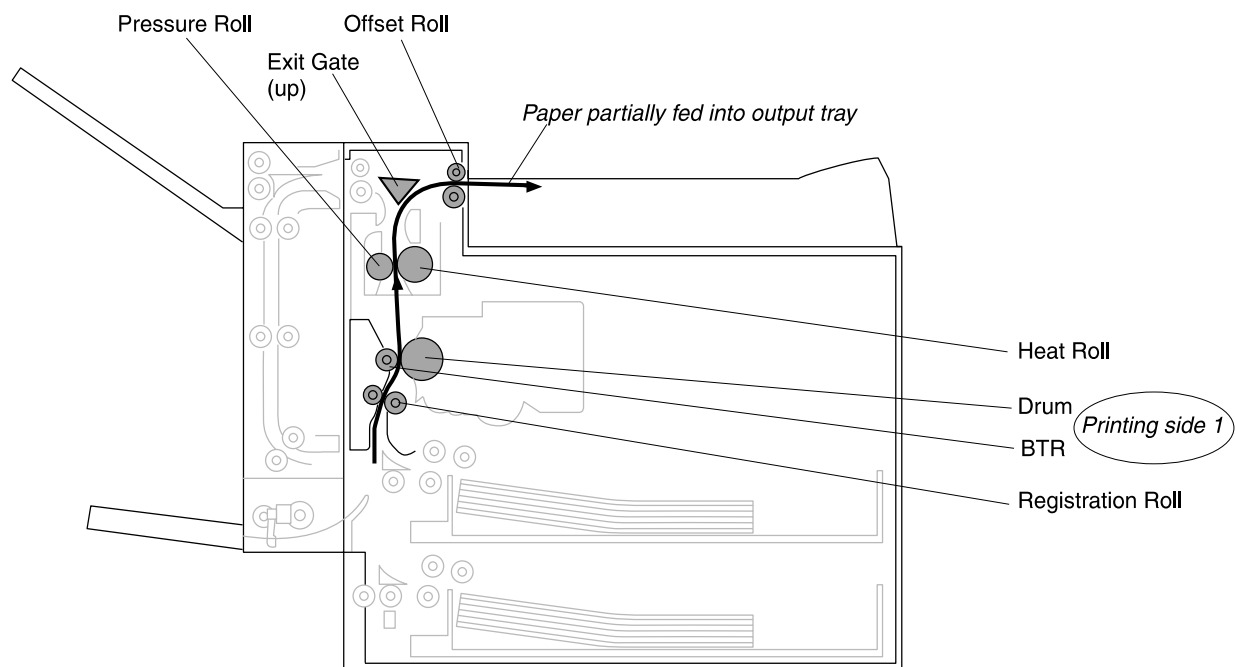
The Duplex Module Paper Path is the physical route that a sheet of paper takes through the Duplex Module during a Duplex Mode print cycle. Rubber rollers and solenoid activated gates drive and direct the paper along the Paper Path. The primary purpose of the Duplex Module Paper Path is to accept a printed sheet of paper from the Fuser exit area, drive that sheet down through the Duplex Module, effectively flipping over the sheet, and refeed the sheet back into the printer registration area so the printer can begin to transfer an image onto the second side.

NOTE

The Duplex Module provides duplex printing for paper fed from all available paper trays except the MSI and the Envelope Feeder. Paper fed from either the MSI or the Envelope Feeder cannot be duplexed.

Step 1

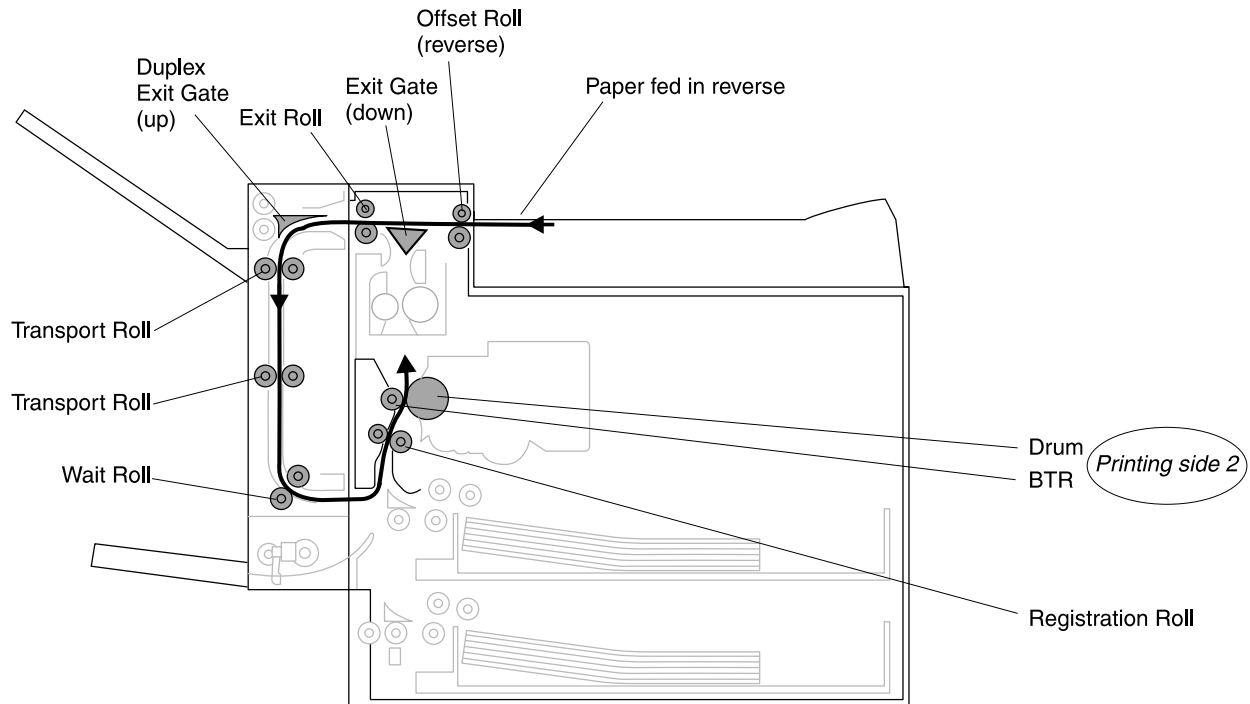
The Drum and BTR place an image side one of a sheet of paper. The Drum/BTR drive the paper into the Heat and Pressure Rolls. The Heat and Pressure Rolls drive the sheet into the Exit Unit. The Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Offset Roll. The Offset Roll drives the sheet partially into the Output Tray, then stops.



SER675X

Step 2

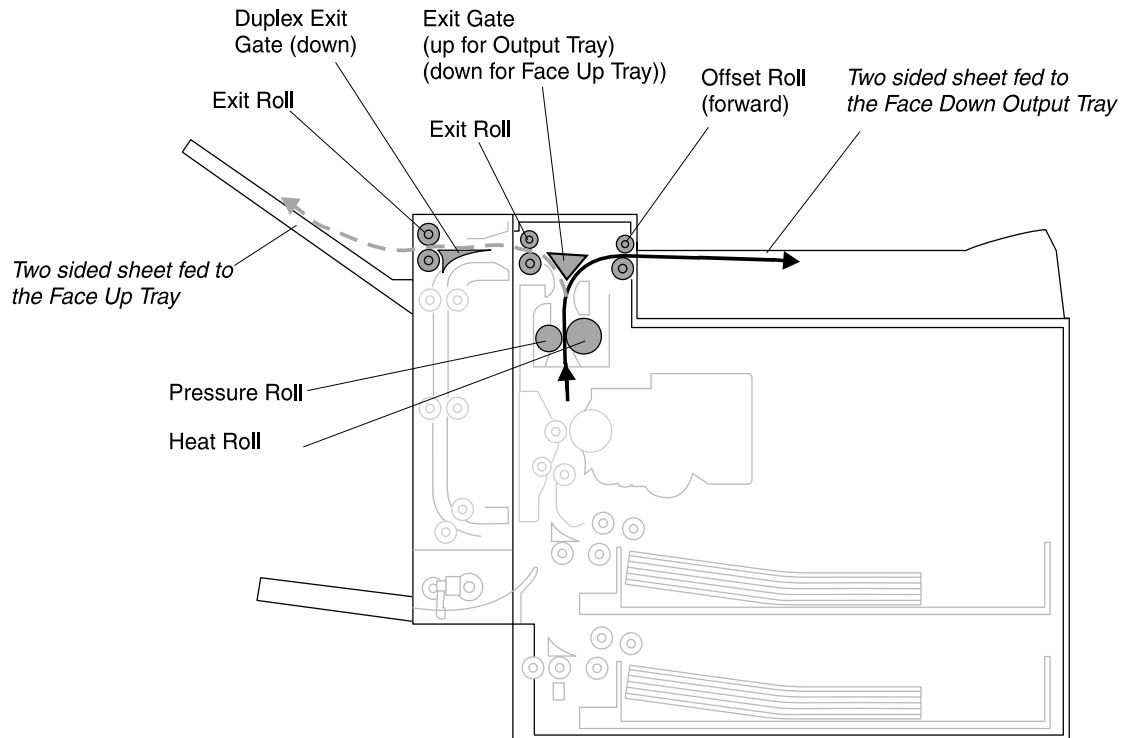
The Inverter CCW Clutch switches on and rotates the Offset Roll backwards, driving the sheet of paper back into the Exit Unit. The Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Exit Roll. The Exit Roll drives the sheet of paper into the Duplex Module. The Duplex Exit Solenoid toggles the Duplex Exit Gate so the paper path runs to the Duplex Transport Roll. Two sets of Transport Rolls drive the paper down to the Wait Roll. The paper stops momentarily at the Wait Roll. When it is time to send the sheet of paper back into the printer for printing on the second side, the Wait Clutch switches on and the Wait Roll drives the paper out of the Duplex Module and into the printer Registration Roll. The paper stops at the Registration Roll so the image on the Drum can align with the leading edge of the paper. When registration is complete, the Registration Roll drives the paper into the Drum and BTR where the second side is printed.



SER676X

Step 3

The Drum and BTR place an image onto the second side of the sheet of paper. The Drum/BTR drive the paper into the Heat and Pressure Rolls. The Heat and Pressure Rolls drive the sheet into the Exit Unit. Depending on the output location the user selected, the Exit Gate Solenoid toggles the Exit Gate so the paper path runs to either the Face Down Output Tray or back through the Duplex Module and into the Face Up Output Tray. If the user selected the Face Down Output Tray the Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Offset Roll, which drives the sheet into the Face Down Output Tray. If the user selected the Face Up Output Tray, the Exit Gate Solenoid toggles the Exit Gate so the paper path runs to the Exit Rolls, which drive the sheet into the Duplex Module. Inside the Duplex Module the Duplex Exit Gate Solenoid toggles the Duplex Exit Gate so the paper path runs to the Duplex Exit Rolls, which drive the paper into the Face Up Output Tray.



SER677X

Duplex Module Paper Path Components

The Duplex Module Paper Path is made up of a number of transport rolls and paper sensors.

1. Exit Gate and Exit Gate Solenoid

Diverts paper to either the Duplex Transport Roll #1 or to the Face Up Tray.

2. Transport Roll #1 and Pinch Roll

Drives paper down through the Duplex Module and into the lower Transport Roll.

3. Transport Roll and Pinch Roll

Drive paper into the Wait Roll area.

4. Wait Sensor

Monitors paper at the Wait Roll. Holds paper there until it is time to refeed the sheet into the printer.

5. Wait Roll and Pinch Roll

When it is time to refeed the sheet into the printer for the second side printing, the Wait Roll drives the paper out of the Duplex Module and back into the printer.

6. Exit Roll

Drives paper out of the Duplex Module and into the Face Up output tray.

7. Exit Sensor

Monitors paper travel through the Exit Roll and into the Face Up output tray.

Section 9 - Wiring Diagrams and Signal Information

This section of the manual contains individual block diagrams (BD) to better illustrate the electrical relationships between components and assemblies within the Duplex Module. Each wire in the diagrams is tagged with a signal name, and each wire is terminated at both ends with a pin number.

Wiring Diagram Notations

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the printer.

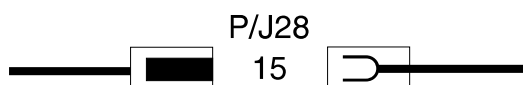
A PLUG



A JACK



CONNECTION OF PIN 15 OF CONNECTORS P28 AND J28.



THE SIGNAL NAME OF A WIRE



THE VOLTAGE MEASURED WITH THE NEGATIVE PROBE OF THE METER ON SG



THE VOLTAGE VALUE OF A SIGNAL



/ = The voltage goes LOW when the signal is ON.

SR1400X

In this case, the HEAT signal is ON, so the normal voltage of 4.2VDC drops to 0VDC.

SGSIGNAL GROUND

FGFRAME GROUND

RTNRETURN

There is continuity between SG and RTN. Continuity between FG and SG depends on circuit specifications.

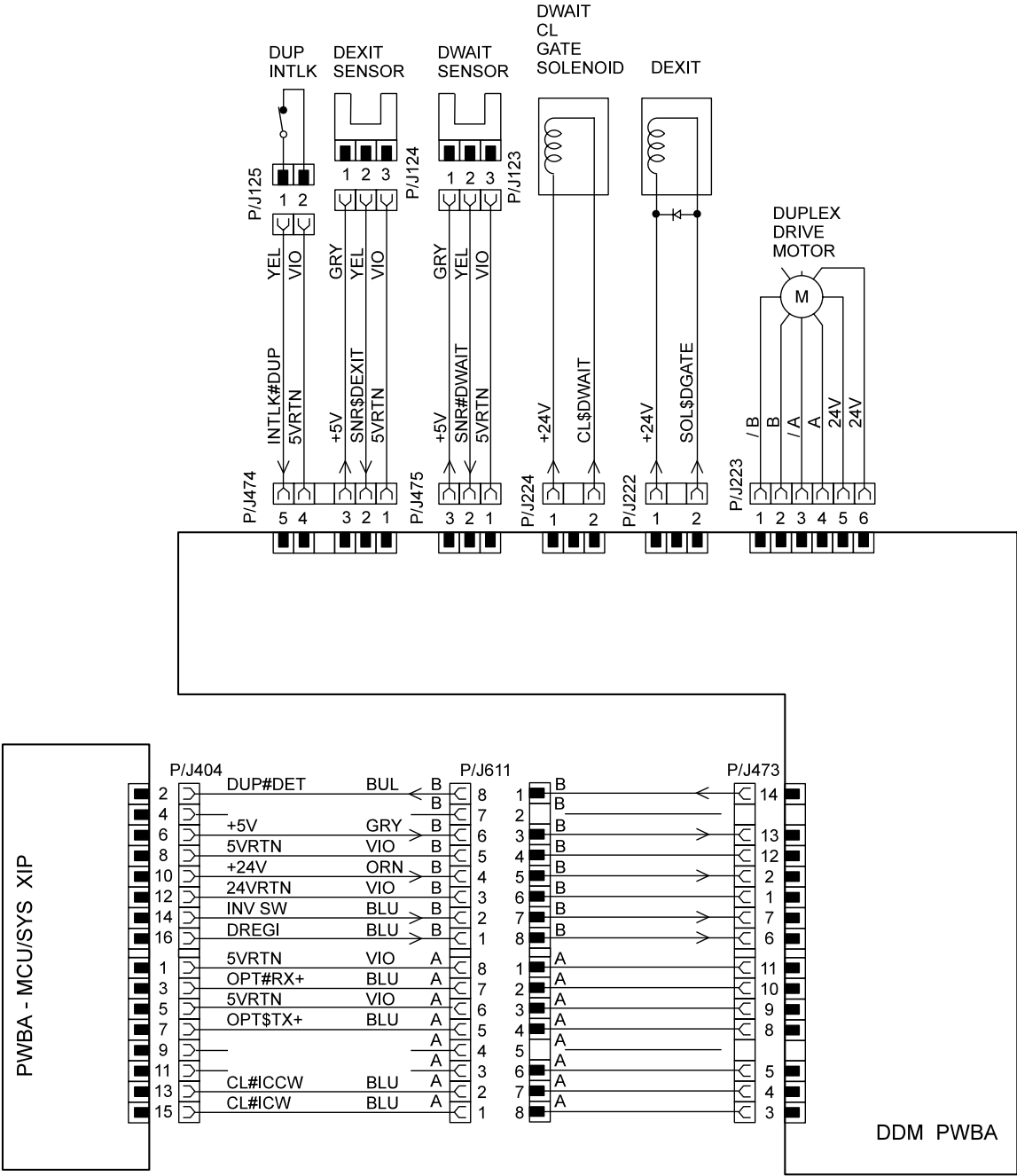
\$\$ in a signal name indicates the signal is coming from the MCU CPU.

in a signal name indicates the signal is going to the MCU CPU.

TTLTTL displayed in the HIGH level or LOW level columns of the signal tables indicate the signal is ECL_CMOS compatible.

HIGH is 4 to 5 VDC

BD1 Duplex Components' Duplex PWB' MCU PWB



SER612XC

SER612XC

BD1 Duplex Components' Duplex PWB' MCU PWB

The following table shows the signal names for the Duplex components, through the Duplex PWB, and to the MCU PWB:

Signal Name	Description
OPT\$TX+	Status of Duplex Module sent to MCU. High=Mark. Low=No mark
OPT#RX+	Status of MCU sent to the Duplex Module. High=Mark. Low=No mark
DUP#DET	Monitors presence of a Duplex Module. High=Duplex Module installed. Low=Duplex Module not installed
OREGI	Monitors paper at the Registration Sensor. High=Paper present. Low=Paper not present
INV SW	Monitors paper at the Fuser Exit Sensor. High=Paper present. Low=Paper not present
CLS\$ICW	Switches the Inverter CW Clutch. High=Off. Low=On
CLS\$ICW	Switches the Inverter CCW Clutch. High=Off. Low=On
INTLK#DUP	Monitors the Duplex Cover Interlock Switch. High=Cover Open. Low=Cover closed
SNR#DEXIT	Monitors paper at the Duplex Exit Sensor. High=Paper present. Low=Paper not present
SNR#DWAIT	Monitors paper at the Duplex Wait Sensor. High=Paper present. Low=Paper not present
SOL\$DGATE	Switches the Duplex Exit Gate Solenoid. High=Off. Low=On
/A, A, /B, B	Pulse signals sent by the Duplex PWB to rotate the Duplex Motor

Section 10 - Duplex Module Specifications

General Specifications

Category	Specification
Configuration	Customer installed option. Attaches to the left side of the printer, above the MSI. The optional Face Up Tray can be used with the Duplex Module.
Paper feed	The Duplex Module provides duplex printing for paper fed from all available paper trays except the MSI and the Envelope Feeder. Paper fed from the MSI or from the Envelope Feeder cannot be duplexed.
Power requirements	The base printer provides all of the Duplex Module power requirements; +5VDC and +24VDC
Size and weight	Height: 369mm Width: 92mm Depth: 484mm Weight: 5.5kg

Available Duplex Printing Modes

Mode	Specification
One Sheet Batch Page2 - Page1	The printer prints on one side of a sheet of paper. The Duplex Module returns the printed sheet to the printer. The printer prints on the other side of the sheet of paper. The printer transports the duplex printed sheet to the output tray.
Two Sheet Batch Page2 - Page4- Page1- Page3	The printer prints on one side of a sheet of paper. The Duplex Module holds that sheet, while the printer prints on one side of a second sheet of paper. The Duplex Module returns the first sheet to the printer. The printer prints on the second side of the first sheet. The Duplex Module then returns the second sheet to the printer. The printer transports the duplex printed first sheet to the output tray. The printer prints on the second side of the second sheet. The printer transports the duplex printed second sheet to the output tray. This process repeats for additional prints.
Three Sheet Batch Page2 - Page4- Page1- Page6- Page3- Page 5	The printer prints on one side of a sheet of paper. The Duplex Module holds that sheet, while the printer prints on one side of a second sheet of paper. The Duplex Module returns the first sheet to the printer. The printer prints on the second side of the first sheet. The printer prints on the second side of a third sheet. The Duplex Module holds the third sheet. The Duplex Module returns the second sheet to the printer. The printer prints on the second side of the second sheet. The Duplex Module returns the third sheet to the printer. The printer prints on the second side of the third sheet.

Continuous Printing Speed After The First Sheet Out in Duplex Mode

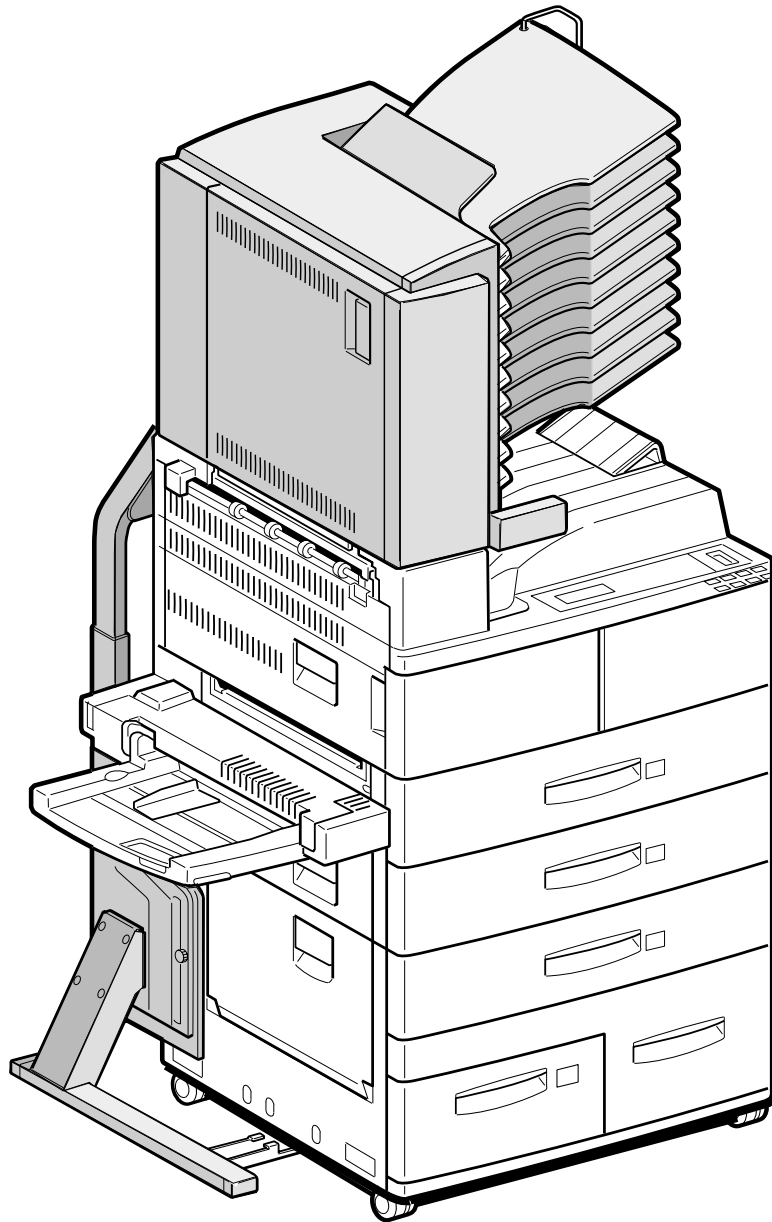
Paper Type	Tray 1 and 2 (prints per minute)	Tray 3 (prints per minute)	HCF 4 & 5 (prints per minute)	MSI (prints per minute)
A4 LEF	31	28	23	19
LETTER LEF	31	28	23	19
A4 SEF	17	17	--	--
LETTER SEF	17	17	--	--
B4 SEF	15	15	--	--
Legal 13" SEF	15	15	--	--
Legal 14" SEF	15	15	--	--
A3 SEF	14	13	--	--
Ledger SEF	14	13	--	--

Paper Sizes Recommended for use with the Duplex Module

64gsm ~ 90gsm paper fed from Trays 1 through 5. The minimum paper size recommended for Duplex feed is B5 LEF or Executive. The maximum paper size recommended for Duplex feed is A3 SEF or 11" x 17" SEF.

Paper Type	Use with Simplex Face Up output using the Duplex Module	Use with Duplex printing using One Sheet Batch method	Use with Duplex printing using Two Sheet Batch method
Ledger (SEF)	Y	Y	N
A3 (SEF)	Y	Y	N
B4 (SEF)	Y	Y	N
Legal 14" (SEF)	Y	Y	N
Legal 13" (SEF)	Y	Y	N
A4 (SEF)	Y	Y	N
Letter (SEF)	Y	Y	N
B5 (SEF)	Y	Y	N
Letter (LEF)	Y	Y	Y
A4 (LEF)	Y	Y	Y
Executive (LEF)	Y	Y	N
B5 (LEF)	Y	Y	N
A5 (LEF)	Y	N	N
Statement (LEF)	Y	N	N
Japanese Official Postcard	Y	N	N
COM#10 (SEF) envelopes	Y	N	N
C5 (SEF) envelopes	Y	N	N
DL (SEF) envelopes	Y	N	N
Monarch (SEF & LEF) envelopes	Y	N	N

3260/4032 Laser Printer Mailbox Technical Manual



SR1462XA

MINOLTA-QMS, Inc.

About this Manual	MBX-4
1. The Fault Isolation Procedure (FIP) Flowchart	MBX-5
2. Primary FIPs: Error Codes	MBX-7
3.1 Error code F2-1	MBX-7
3.2 Error Code F2-2	MBX-9
3.3 Error Code F2-3	MBX-11
3.4 Error Code F2-6	MBX-12
3.5 Error Code F3-1	MBX-14
3.6 Error Code F3-2	MBX-16
3.7 Error Code F3-6	MBX-18
3. Primary FIPs: Mailbox Performance Problems	MBX-21
4.1 Inoperative Mailbox	MBX-21
4. Running Mailbox Diagnostics	MBX-21
5. Removal and Replacement Procedures (RRPs)	MBX-29
RRP 13.1 Mailbox.	MBX-30
RRP 13.2 Sorter Left Cover Assembly	MBX-32
RRP 13.3 Sorter Front Cover	MBX-34
RRP 13.4 Sorter Rear Cover	MBX-36
RRP 13.5 Sorter Top Cover.	MBX-38
RRP 13.6 Actuator Cover Assembly.	MBX-40
RRP 13.7 BIN 1 Jam Sensor.	MBX-42
RRP 13.8 Bin Tray 1 Assembly	MBX-44
RRP 13.9 Sorter Drive Belt.	MBX-46
RRP 13.10 Bin Trays 2 ~ 10 Assemblies	MBX-48
RRP 13.11 Gate Solenoids 2 ~ 10.	MBX-50
RRP 13.12 Sorter Exit Roll.	MBX-52
RRP 13.13 Sorter Entrance Sensor	MBX-54
RRP 13.14 IN Gate Solenoid	MBX-56
RRP 13.15 Vertical LED/Sensor.	MBX-58
RRP 13.16 Sorter Control PWB	MBX-60
RRP 13.17 Sorter Drive Motor	MBX-62
RRP 13.18 Full Stack Actuator.	MBX-64
RRP 13.19 Rear Lower Cover.	MBX-66
RRP 13.20 IN Gate	MBX-68
RRP 13.21 Lower Chute	MBX-70
RRP 13.22 Sorter Interlock Switch.	MBX-72
6. Locating P/J Connectors	MBX-75
7. PL15 Parts List	MBX-77
8. Principles of Operation	MBX-95
9. Wiring Diagrams and Signal Information	MBX-107
10. Mailbox Specifications	MBX-115

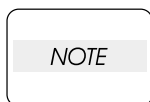
About this Manual

This manual contains technical and service information for the QMS 3260/4032 Mailbox. The information is based on and validated using the SIM B1 model Mailbox option. Expect some minor discrepancies in physical appearance, hardware count, and electrical readings due to engineering modifications and manufacturing changes during the life of the product.

This manual is prepared for use in the United States by MINOLTA-QMS, Inc.. This manual is copyrighted. No portion may be copied, reproduced, submitted to, or read by MINOLTA-QMS, Inc. external customers without the prior consent of MINOLTA-QMS, Inc..

Symbols Used in This Manual

Various symbols are used throughout this manual to either provide additional information on a specific topic, or to warn of possible danger present during a procedure or action. Be aware of all symbols when they are used, and always read NOTE, CAUTION, or WARNING messages.



A Note may indicate an operating or maintenance procedure, practice, or condition that is necessary to accomplish a task efficiently. A Note may also provide additional information that is related to a specific subject, or the results achieved through a previous action.



A Caution indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.



A Warning indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in injury or loss of life.

Section 1- The Fault Isolation Procedure (FIP) Flowchart

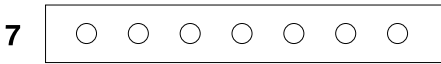
How to Use the FIP Flowchart

1. If you have an error code displayed on the printer Control Panel LCD; go to the **ERROR CODE** box.
2. If you have a Mailbox operation problem; go to the **MAILBOX PERFORMANCE** box.
3. Follow the arrow leading from your problem box to the individual FIP (Fault Isolation Procedure) that corresponds to your error code or Mailbox operation problem.
4. Follow the instructions presented in the FIP.
5. If a FIP instructs you to preform a diagnostic test, refer to Section 8 *Running Mailbox Diagnostics*.
6. Primary FIPs may direct you to a Secondary FIP. In the FIP Flowchart, the relationship between Primary and Secondary FIPs is represented with dotted lines

How to Follow a FIP

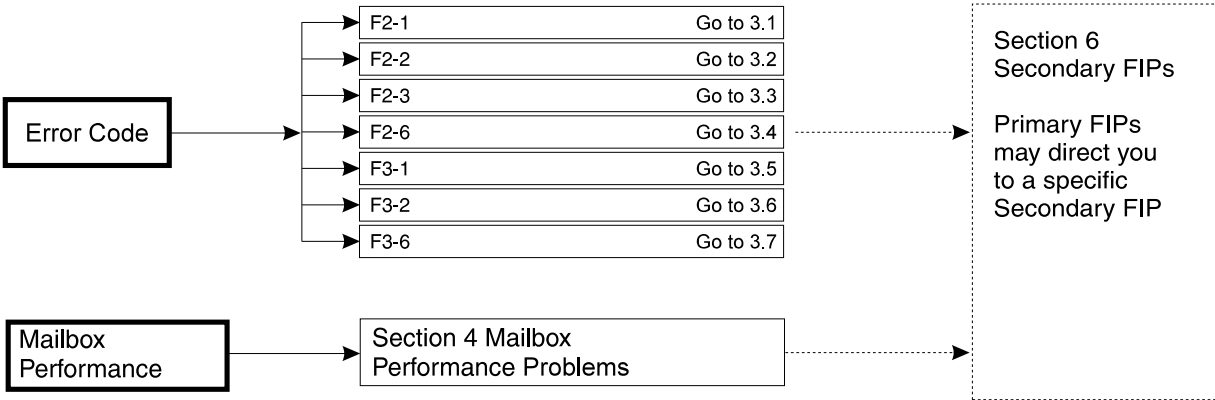
1. Each numbered step in a FIP instructs you to perform a certain action or procedure.
2. The instruction is followed by a question.
3. If your response to the question is **Yes**, then follow the instructions for a Yes reply.
4. If your response to the question is **No**, then follow the instructions for a No reply.
5. FIPs often ask you to replace a component.

Refer to Removal/Replacement provides to find detailed procedures for removing and replacing all major parts of the MBX.

2	500 SIZE SWITCH SIGNAL (FULL) 1. Install a full Paper Cassette into the Feeder. 2. Check the voltage between J302-1 and J302-2. J302  SER275X EMPTY = +0.45 VDC LETTER SEF = +2.19 VDC A4 SEF = +2.82 VDC ENVELOPE = +2.62 VDC LEGAL 13" = +2.4 VDC LEGAL 14" = +3.08 VDC Is the voltage between J302-1 and J302-2 at a level that corresponds to the paper size that is loaded in the Cassette?	Go to step 3	Replace the 500 Sheet Size Switch RRP 1.5
---	---	--------------	---

- ↑
• Step number
- ↑
• Action with substeps, additional information, and a question.
- ↑
• Action to take if the answer to the question is YES
- ↑
• Action to take if the answer to the question is NO

FIP Flowchart



SR1475X

Section 2 Primary FIPS: Error Codes

2.1 Error Code F2-1

There is a paper jam between the Fuser Exit Sensor and the Mailbox Entrance Sensor.

Logic Control on the MCU PWB sensed that the Mailbox Entrance Sensor did not actuate within the specified time after the Fuser Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Open the Sorter Left Cover and observe the location of the jammed sheet of paper. Did the paper reach the Entrance Sensor actuator?	Go to step 3	Go to step 5
3	MAILBOX ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-72. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display L when you insert the paper into the Mailbox Entrance Sensor, and does the LCD display H when you remove the paper?	Go to step 4	Replace the Entrance Sensor (RRP 13.13)
4	Replace the Sorter Control PWB (RRP 13.16). Does the F2-1 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved
5	IN GATE OBSERVATION When performing step 2, did the paper travel under the IN Gate and never entered the Mailbox?	Go to step 6	Go to step 8
6	IN GATE SOLENOID TEST Enter Diagnostic Mode - Output Test 11-13 to check the IN Gate function. Does the IN Gate Solenoid toggle the IN Gate when you start Output Test 11-13, and does it toggle the IN Gate in the other direction when you stop Output Test 11-13?	Go to step 7	Replace the IN Gate Solenoid (RRP 13.14) or reseal the IN Gate Solenoid plunger in the IN Gate Link.

2.1 Error Code F2-1 continued

Step	Actions and Questions	Yes	No
7	Replace the Sorter Control PWB (RRP 13.16). Does the F2-1 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved
8	OFFSET CLUTCH TEST 1. Hand rotate (counter clockwise) the printer Main Drive Motor. 2. Enter Diagnostic Mode - Output Test 8-50 to check the Invert Clutch CW function. Do the Offset Roll rotate?	Clean the Offset Roll and troubleshoot the printer Fuser and Offset Units for stalling, slipping, and broken parts	Replace the Offset Unit Assembly (RRP 7.1)

2.2 Error Code F2-2

There is a paper jam at the Mailbox Entrance Sensor.

Logic Control on the MCU PWB sensed that the Mailbox Entrance Sensor did not deactuate within the specified time after the Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER INSPECTION Inspect the paper that is loaded in the paper cassette. Is the paper loaded in the cassette wrinkled or damaged?	Replace the paper with new paper	Go to step 2
2	PAPER PATH INSPECTION Open the Sorter Left Cover and observe the location of the jammed sheet of paper. Did the paper pass the Entrance Sensor actuator?	Go to step 3	Go to step 5
3	MAILBOX ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-72. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display L when you insert the paper into the Mailbox Entrance Sensor, and does the LCD display H when you remove the paper?	Go to step 4	Replace the Entrance Sensor (RRP 13.13)
4	Replace the Sorter Control PWB (RRP 13.16). Does the F2-2 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved
5	MAILBOX MOTOR TEST Enter Diagnostic Mode - Output Test 11-3 to check the Mailbox Drive Motor. Does the Mailbox Motor run?	Go to step 6	Replace the Sorter Drive Motor (RRP 13.17)
6	DRIVE BELT INSPECTION While the Drive Motor is running, inspect the Drive Belt. Does the Drive Belt run smoothly, without stalling or slipping?	Go to step 7	Replace the Sorter Drive Belt (RRP 13.9)

2.2 Error Code F2-2 continued

Step	Actions and Questions	Yes	No
7	SORTER EXIT ROLL INSPECTION While the Drive Motor is running, inspect the Sorter Exit Rolls. Do the Exit Rolls run smoothly, without stalling or slipping, and are they clean and free from wear?	Go to step 8	Replace the problem Exit Rolls (RRP 13.12)
8	PINCH ROLL INSPECTION Open the Sorter Chute and inspect, rotate, push down and release each individual Pinch Roll. Are the Pinch Rolls clean and free from wear, to they rotate freely, and do they have a spring-action return?	Go to step 9	Replace the Sorter Left Chute (PL15.3.12)
9	BIN GATE INSPECTION Open the Sorter Chute and inspect each Bin Gate; checking to make sure they are laying flat and that none are broken or chipped. Are the Bin Gates undamaged and all laying flat?	Go to step 10	Replace the problem Bin Gate (PL15.5.13)
10	BIN GATE SOLENOID TEST 1. Enter Diagnostic Mode 2. One at a time run Output Tests 11-15 through 11-23 to check Bin Gate Solenoids 2 through 10. Do each of the Solenoids function correctly, do they open the associated Bin Gate, and when the Solenoid is deactuated does the Bin Gate lay flat?	Replace the Sorter Control PWB (RRP 13.16). If the problem persists, replace the MCU PWB (RRP 9.7)	Replace the problem Bin Solenoid (RRP 13.11)

2.3 Error Code F2-3

There is a problem with the Mailbox Entrance Sensor logic.

Logic Control on the MCU PWB sensed that the Mailbox Entrance Sensor was actuated when the printer was not in Mailbox mode.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Sorter Left Cover and observe if there is a sheet of paper at the Entrance Sensor. Is there a sheet of at the Entrance Sensor actuator?	Go to step 2	Go to step 3
2	IN GATE INSPECTION 1. Remove the sheet of paper from the Mailbox. 2. Enter Diagnostic Mod - Output Test 11-13 IN Gate Solenoid. 3. Observe the IN Gate when you actuate and deactuate the Solenoid. Does the Solenoid function correctly, does it drop the IN Gate when actuated, and raise the IN Gate when deactuated?	Go to step 4	Replace the IN Gate Solenoid (RRP 13.14)
3	MAILBOX ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-72. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display L when you insert the paper into the Mailbox Entrance Sensor, and does the LCD display H when you remove the paper?	Go to step 4	Replace the Entrance Sensor (RRP 13.13)
4	Replace the Sorter Control PWB (RRP 13.16). Does the F2-3 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

2.4 Error Code F2-6

There is a problem with the Mailbox Entrance Sensor.

Logic Control on the MCU PWB sensed that the Mailbox Entrance Sensor was actuated while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	MAILBOX ENTRANCE SENSOR INSPECTION Inspect the Entrance Sensor for contamination or paper scraps that may be actuating the sensor. Is the Entrance Sensor clean and free of paper scraps?	Go to step 2	Clean or clear paper scraps from the Sensor
2	MAILBOX ENTRANCE SENSOR INSPECTION Inspect the Entrance Sensor for damage, such as a broken spring or actuator, that may have locked the Sensor in the on position. Is the sensor undamaged?	Go to step 3	Replace the Entrance Sensor (RRP 13.13)
3	MAILBOX ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-72. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display L when you insert the paper into the Mailbox Entrance Sensor, and does the LCD display H when you remove the paper?	Go to step 4	Replace the Entrance Sensor (RRP 13.13)
4	Replace the Sorter Control PWB (RRP 13.16). Does the F2-6 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

This page intentionally left blank.

2.5 Error Code F3-1

There is a paper jam between the Mailbox Entrance Sensor and the Mailbox Vertical Sensor, or between the Mailbox Entrance Sensor and the BIN 1 Jam Sensor.

Logic Control on the MCU PWB sensed that either the Mailbox Vertical Sensor did not actuate within the specified time after the Mailbox Entrance Sensor was actuated, or that BIN 1 Jam Sensor did not actuate within the specified time after the Mailbox Entrance Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Sorter Left Cover and observe if a sheet of paper entered or started to enter a Bin. Is there a sheet of inside a Bin or at the entrance to a Bin?	Go to step 2	Go to step 4
2	VERTICAL SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-70. 2. Insert, then remove, a sheet of paper into the Vertical Sensor path. Does the Control Panel LCD display L when you insert the paper into the Vertical Sensor, and does the LCD display H when you remove the paper?	Go to step 3	Replace the Vertical Sensor (RRP 13.15)
3	BIN 1 JAM SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-71. 2. Insert, then remove, a sheet of paper into the BIN 1 Jam Sensor. Does the Control Panel LCD display L when you insert the paper into the BIN 1 Jam Sensor, and does the LCD display H when you remove the paper?	Go to step 9	Replace the BIN 1 Jam Sensor (RRP 13.7)
4	MAILBOX MOTOR TEST Enter Diagnostic Mode - Output Test 11-3 to check the Mailbox Drive Motor. Does the Mailbox Motor run?	Go to step 5	Go to step 9
5	DRIVE BELT INSPECTION While the Drive Motor is running, inspect the Drive Belt. Does the Drive Belt run smoothly, without stalling or slipping?	Go to step 6	Replace the Sorter Drive Belt (RRP 13.9)

2.5 Error Code F3-1 continued

Step	Actions and Questions	Yes	No
6	SORTER EXIT ROLL INSPECTION While the Drive Motor is running, inspect the Sorter Exit Rolls. Do the Exit Rolls run smoothly, without stalling or slipping, and are they clean and free from wear?	Go to step 7	Replace the problem Exit Rolls (RRP 13.12)
7	PINCH ROLL INSPECTION Open the Sorter Chute and inspect, rotate, push down and release each individual Pinch Roll. Are the Pinch Rolls clean and free from wear, to they rotate freely, and do they have a spring-action return?	Go to step 8	Replace the Sorter Left Chute (PL15.3.12)
8	BIN GATE SOLENOID TEST 1. Enter Diagnostic Mode 2. One at a time run Output Tests 11-15 through 11-23 to check Bin Gate Solenoids 2 through 10. Do each of the Solenoids function correctly, do they open the associated Bin Gate, and when the Solenoid is deactuated does the Bin Gate lay flat?	Go to step 9	Replace the problem Bin Solenoid (RRP 13.11)
9	Replace the Sorter Control PWB (RRP 13.16). Does the F3-1 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

2.6 Error Code F3-2

There is a paper jam between the Mailbox Entrance Sensor and the Mailbox Vertical Sensor, or at BIN 1 Jam Sensor.

Logic Control on the MCU PWB sensed that either the Mailbox Vertical Sensor did not actuate within the specified time after the Mailbox Entrance Sensor was actuated, or that BIN 1 Jam Sensor did not deactuate within the specified time after it was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Sorter Left Cover and observe if a sheet of paper entered or started to enter a Bin. Is there a sheet of inside a Bin or at the entrance to a Bin?	Go to step 2	Go to step 4
2	VERTICAL SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-70. 2. Insert, then remove, a sheet of paper into the Vertical Sensor path. Does the Control Panel LCD display L when you insert the paper into the Vertical Sensor, and does the LCD display H when you remove the paper?	Go to step 3	Replace the Vertical Sensor (RRP 13.15)
3	BIN 1 JAM SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-71. 2. Insert, then remove, a sheet of paper into the BIN 1 Jam Sensor. Does the Control Panel LCD display L when you insert the paper into the BIN 1 Jam Sensor, and does the LCD display H when you remove the paper?	Go to step 9	Replace the BIN 1 Jam Sensor (RRP 13.7)
4	MAILBOX MOTOR TEST Enter Diagnostic Mode - Output Test 11-3 to check the Mailbox Drive Motor. Does the Mailbox Motor run?	Go to step 5	Go to step 9
5	DRIVE BELT INSPECTION While the Drive Motor is running, inspect the Drive Belt. Does the Drive Belt run smoothly, without stalling or slipping?	Go to step 6	Replace the Sorter Drive Belt (RRP 13.9)

2.6 Error Code F3-2 continued

Step	Actions and Questions	Yes	No
6	SORTER EXIT ROLL INSPECTION While the Drive Motor is running, inspect the Sorter Exit Rolls. Do the Exit Rolls run smoothly, without stalling or slipping, and are they clean and free from wear?	Go to step 7	Replace the problem Exit Rolls (RRP 13.12)
7	PINCH ROLL INSPECTION Open the Sorter Chute and inspect, rotate, push down and release each individual Pinch Roll. Are the Pinch Rolls clean and free from wear, to they rotate freely, and do they have a spring-action return?	Go to step 8	Replace the Sorter Left Chute (PL15.3.12)
8	BIN GATE SOLENOID TEST 1. Enter Diagnostic Mode 2. One at a time run Output Tests 11-15 through 11-23 to check Bin Gate Solenoids 2 through 10. Do each of the Solenoids function correctly, do they open the associated Bin Gate, and when the Solenoid is deactuated does the Bin Gate lay flat?	Go to step 9	Replace the problem Bin Solenoid (RRP 13.11)
9	Replace the Sorter Control PWB (RRP 13.16). Does the F3-2 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

2.7 Error Code F3-6

There is a paper jam between at the Mailbox Vertical Sensor or at BIN 1 Jam Sensor.

Logic Control on the MCU PWB sensed that either the Vertical Sensor did not deactuate within the specified time after it was actuated, or that BIN 1 Jam Sensor did not deactuate within the specified time after it was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Sorter Left Cover and observe if a sheet of paper entered or started to enter a Bin. Is there a sheet of inside a Bin or at the entrance to a Bin?	Go to step 2	Go to step 4
2	VERTICAL SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-70. 2. Insert, then remove, a sheet of paper into the Vertical Sensor path. Does the Control Panel LCD display L when you insert the paper into the Vertical Sensor, and does the LCD display H when you remove the paper?	Go to step 3	Replace the Vertical Sensor (RRP 13.15)
3	BIN 1 JAM SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-71. 2. Insert, then remove, a sheet of paper into the BIN 1 Jam Sensor. Does the Control Panel LCD display L when you insert the paper into the BIN 1 Jam Sensor, and does the LCD display H when you remove the paper?	Go to step 9	Replace the BIN 1 Jam Sensor (RRP 13.7)
4	MAILBOX MOTOR TEST Enter Diagnostic Mode - Output Test 11-3 to check the Mailbox Drive Motor. Does the Mailbox Motor run?	Go to step 5	Go to step 9
5	DRIVE BELT INSPECTION While the Drive Motor is running, inspect the Drive Belt. Does the Drive Belt run smoothly, without stalling or slipping?	Go to step 6	Replace the Sorter Drive Belt (RRP 13.9)

2.7 Error Code F3-6 continued

Step	Actions and Questions	Yes	No
6	SORTER EXIT ROLL INSPECTION While the Drive Motor is running, inspect the Sorter Exit Rolls. Do the Exit Rolls run smoothly, without stalling or slipping, and are they clean and free from wear?	Go to step 7	Replace the problem Exit Rolls (RRP 13.12)
7	PINCH ROLL INSPECTION Open the Sorter Chute and inspect, rotate, push down and release each individual Pinch Roll. Are the Pinch Rolls clean and free from wear, to they rotate freely, and do they have a spring-action return?	Go to step 8	Replace the Sorter Left Chute (PL15.3.12)
8	BIN GATE SOLENOID TEST 1. Enter Diagnostic Mode 2. One at a time run Output Tests 11-15 through 11-23 to check Bin Gate Solenoids 2 through 10. Do each of the Solenoids function correctly, do they open the associated Bin Gate, and when the Solenoid is deactuated does the Bin Gate lay flat?	Go to step 9	Replace the problem Bin Solenoid (RRP 13.11)
9	Replace the Sorter Control PWB (RRP 13.16). Does the F3-6 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

Section 3- Primary FIPs: Performance Problems

3.1 Inoperative Mailbox

The Mailbox does not function, the Sorter Drive Motor does not switch on, and the problem is not identified by a displayed Error Code.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	INTERFACE CABLE INSPECTION Check the Mailbox Cable. Is the Cable firmly connected to the P/J at the rear of the printer?	Go to step 2	Reconnect the Mailbox Interface Cable
2	MAILBOX MOTOR TEST Enter Diagnostic Mode - Output Test 11-3 to check the Mailbox Drive Motor. Does the Mailbox Motor run?	Go to step 3	Go to step 6
3	MAILBOX ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 11-72. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display L when you insert the paper into the Mailbox Entrance Sensor, and does the LCD display H when you remove the paper?	Go to step 4	Go to step 6
4	COMPUTER/PRINTER CONNECTION CHECK Run a simplex print job from the host computer, with output to the Face Down Output Tray. Does the printer process the simplex print job?	Go to step 5	Reconnect or replace the computer/ printer interface cable or check for a possible computer hardware problem
5	DRIVER SOFTWARE RELOAD 1. Reload the printer driver software. 2. Run a Mailbox print job from the host computer. Does the printer process the Mailbox print job?	Problem solved	Replace the QMS Video Controller (RRP 9.8)

3.1 Inoperative Mailbox continued

Step	Actions and Questions	Yes	No
6	MAILBOX VOLTAGE CHECK 1. Remove the Rear Cover (RRP 13.3). 2. Switch on the printer power. 3. Measure the voltage between J800-8 and FG (frame ground), the voltage between J800-10 and FG, and the voltage between J800-12 and FG on the Sorter Control PWB. Is there +24VDC between J800-8 and FG, and is there +5VDC between J800-10 and FG, and is there +5VDC between J800-12 and FG on the Sorter Control PWB?	Replace the Sorter Control PWB (RRP 13.16)	Go to step 7
7	MCU PWB POWER OUT CHECK 1. Remove the printer Rear Cover (RRP 1.3). 2. Measure the voltage between J404-6 and FG, and the voltage between J404-12 and FG on the MCU PWB. Is there +5VDC between J404-6 and FG, and is there +24VDC between J404-12 and FG?	Replace the MCU PWB (RRP 9.7)	Replace the LVPS (RRP 9.2)

Section 4 - Running Mailbox Diagnostics

Diagnostic Mode Routines and Subroutines

While in Diagnostic Mode you have access to a variety of test functions:

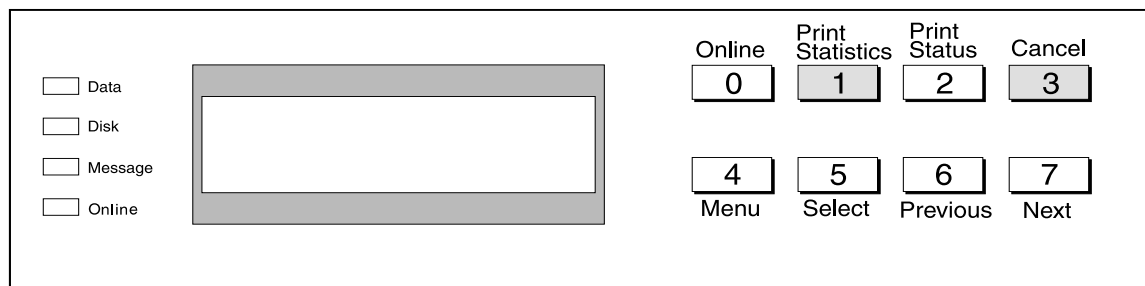
- **Input Test (H/L)**
Check the signal level (on/off) coming from a specific sensor.
- **Output Test**
Switch on and off a specific component, such as the motor or a solenoid.
- **Test Print**
Have the printer generate a test print and deliver it to a selected Mailbox bin.

Before running Diagnostics

Connect the printer Control Panel to the MCU PWB (Refer to *Section 7-Diagnostic Mode and the Control Panel* of the Base Engine Technical Manual) on how to connect and use the Control Panel to run Diagnostics).

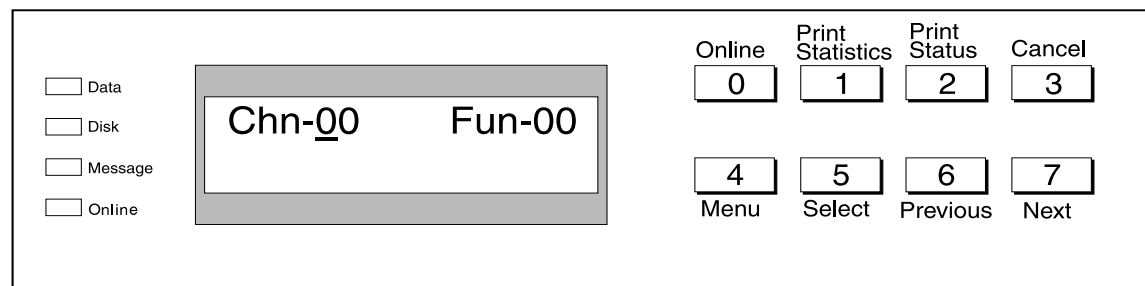
To enter Diagnostic Mode

1. Press and hold [1] and [3] while you switch on printer main power.



SER875X

2. When the Control Panel LCD displays *Chn-00 Fun-00*, as shown below, release [1] and [3].
The printer is now in Diagnostic Mode.



SER876X

Running an Output Test

Use this Diagnostic routine to actuate Mailbox components such as the motor and the solenoids. You can run multiple output tests simultaneously.

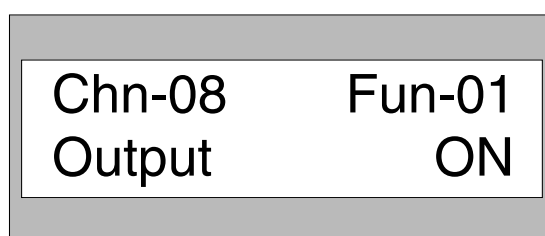
1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select a Mailbox related Output Test from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Output test.

The LCD displays the *Chn* - *Fun* number of the test, *Output*, and *ON* to indicate the test has started.

The output component under test should click, switch on, or start running.



SER877X

7. Press Function Key [0] to stop the Output Test.
8. Press [1] to restart the test if necessary.

Output Tests for the Mailbox

Chain (Routine)	Function (Subroutine)	Switches on the...	Comments
11	3	Mailbox Motor	
11	13	IN Gate Solenoid	Opens IN Gate. Switch off test after 5 seconds.
11	15	BIN 2 Gate Solenoid	Opens Gate 2. Switch off test after 5 seconds.
11	16	BIN 3 Gate Solenoid	Opens Gate 3. Switch off test after 5 seconds
11	17	BIN 4 Gate Solenoid	Opens Gate 4. Switch off test after 5 seconds
11	18	BIN 5 Gate Solenoid	Opens Gate 5. Switch off test after 5 seconds
11	19	BIN 6 Gate Solenoid	Opens Gate 6. Switch off test after 5 seconds
11	20	BIN 7 Gate Solenoid	Opens Gate 7. Switch off test after 5 seconds
11	21	BIN 8 Gate Solenoid	Opens Gate 8. Switch off test after 5 seconds
11	22	BIN 9 Gate Solenoid	Opens Gate 9. Switch off test after 5 seconds
11	23	BIN 10 Gate Solenoid	Opens Gate 10. Switch off test after 5 seconds

Running an Input Test (H/L)

Use this Diagnostic routine to check the digital signal level (High or Low) from a Mailbox sensor. This test tells you whether or not a sensor is working correctly and is sending a signal to the MCU PWB.

1. Enter Diagnostic Mode

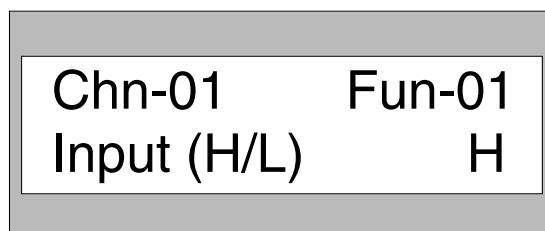
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select a Mailbox related Input Test (H/L) from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Input test.

The LCD displays the *Chn* - *Fun* number of the test, *Input (H/L)*, and *H* or *L* to indicate the status of the sensor at that moment.

7. Watch the status field as you manually actuate the sensor.

The status field should change from either H to L or L to H as you manually actuate and deactuate the sensor.



SER878X

8. When you are finished with this test, switch off printer main power to exit Diagnostic Mode.

Input Test (H/L) table

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
11	44	Left Cover Interlock Switch	H = Cover open L = Cover closed
11	60	BIN 1 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	61	BIN 2 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	62	BIN 3 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	63	BIN 4 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	64	BIN 5 Full Stack Sensor	H = Paper sensed L = No Paper sensed

Input Test (H/L) table continued

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
11	65	BIN 6 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	66	BIN 7 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	67	BIN 8 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	68	BIN 9 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	69	BIN 10 Full Stack Sensor	H = Paper sensed L = No Paper sensed
11	70	Vertical Sensor	H = No Paper sensed L = Paper sensed
11	71	BIN 1 Jam Sensor	H = No Paper sensed L = Paper sensed
11	72	Entrance Sensor	H = No Paper sensed L = Paper sensed

Running a Test Print to the Mailbox

Use this diagnostic routine to print a test pattern and have the printer deliver it to a specified Mailbox bin.

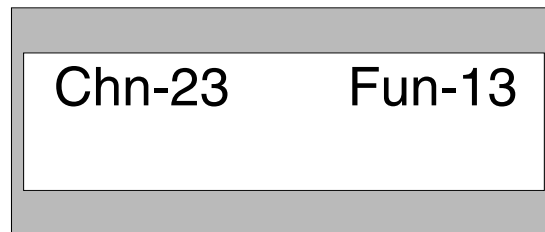
To generate a Test Print

1. Enter Diagnostic Mode
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.
2. Use the Control Panel keys to enter Chain 23.
3. Press Function Key [1] to switch the cursor from Chn and Fun.
4. Use the Control Panel keys to enter the Fun 76.
5. Press Function Key [1].
6. Use the Control Panel keys to enter the Bin destination NV number.
7. Press Function Key [1] to write the Bin destination to NVRAM.
8. Press Function Key [0] to exit 23-76.
9. Select a specific Test Print pattern from the table on the next page.

See Section 8 of the Base Engine Technical Manual for a complete listing of all available test print routines.

10. Use the Control Panel keys to enter the Chain number of the test.
11. Press Function Key [1] to switch the cursor from Chn and Fun.
12. Use the Control Panel keys to enter the Fun number of the test.
13. Press Function Key [1] to generate a Test Print.

The printer generates test prints until you stop the routine.



SER881X

To stop Test Print

1. Press Function Key [0].

Test Print tables

Chain (Routine)	Function (Subroutine)	Tray, Mode, and Test Pattern Type
23	10	Tray 1 Simplex Mode: Blank sheet of paper
23	11	Tray 1 Simplex Mode: Solid black up to the white margins
23	13	Tray 1 Simplex Mode: 4 dot grid pattern

Chain (Routine)	Function (Subroutine)	Test Print Output Destination NV number = test print destination
23	75	Test Print Destination (default = 0) 0 = Face Down Tray 1= Face Up Tray 2= Mailbox: sorter mode 3= Mailbox: mailbox mode 4= HCS Top Tray 5= HCS Middle Tray 6= HCS Bottom Tray
23	76	Test Print MBX Bin Selection (default = 10) 1 = Bin 1 2= Bin 2 3= Bin 3 4= Bin 4 5= Bin 5 6= Bin 6 7= Bin 7 8= Bin 8 9= Bin 9 10- Bin 10

Section 5 - Removal and Replacement Procedures (RRP)

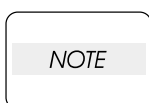
This section contains the removal and replacement procedures for major parts and subsystems within the printer Mailbox/Sorter.

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power.
2. Disconnect the AC power cord from the wall outlet.
3. Disconnect all interface cables from the back of the printer.
4. Wear an electrostatic discharge wrist strap to protect sensitive printer parts from damage.

Work Notes



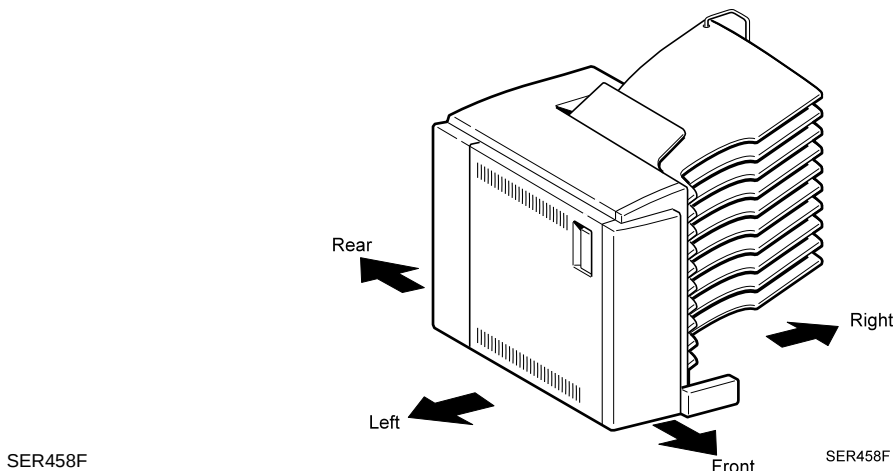
Names of parts that appear in the RRP's may not be exactly the same as the names appear in the parts list. For example, an RRP for the MSI Tray Assembly may appear on the parts list as Tray Assembly MSI. As used in this manual the terms Mailbox and Sorter mean the same thing.



Always reinstall the correct type and size screws. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install a part.

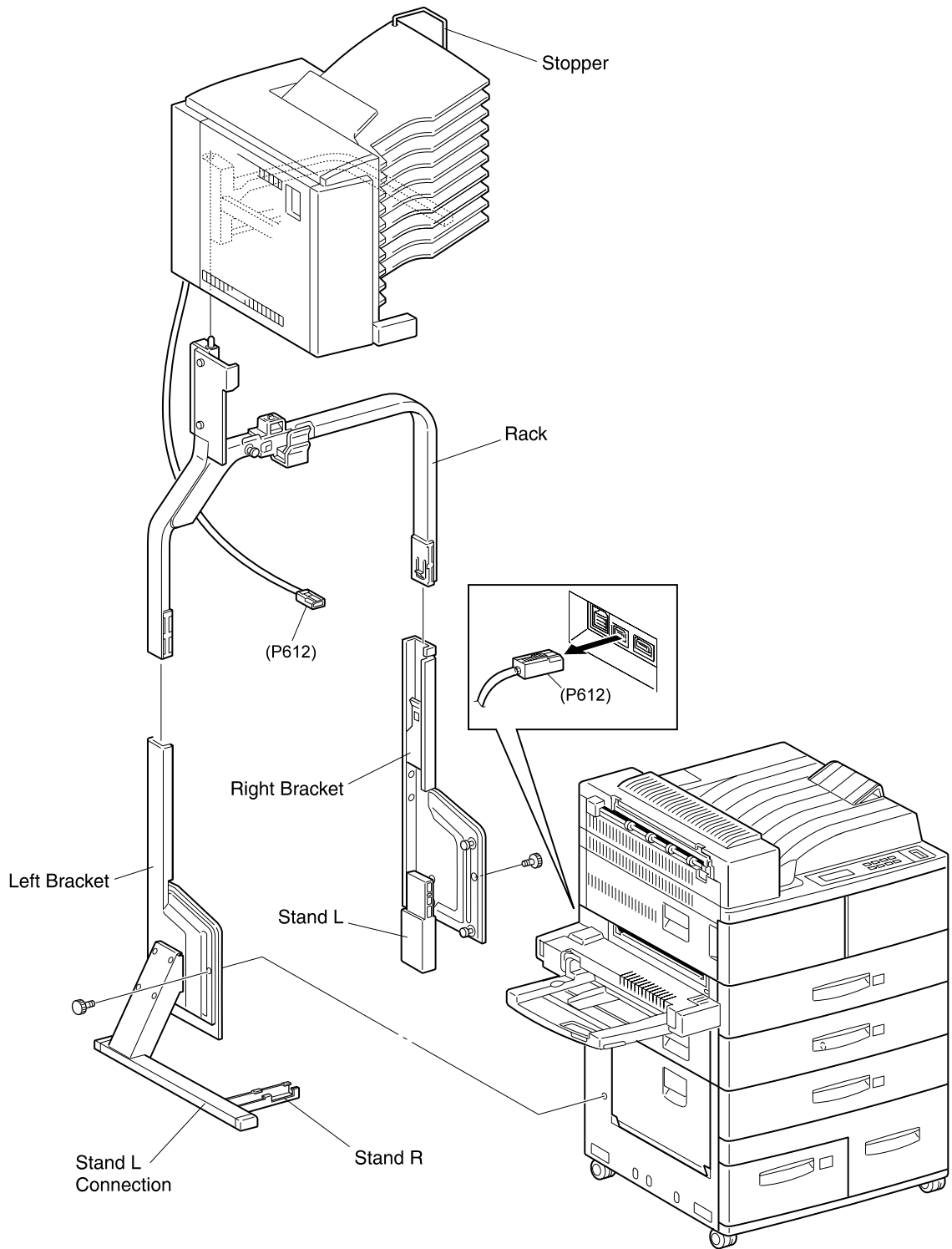
Notations in the RRP text

- Locations, such as R or right, given in the RRP's assume you are facing the printer console panel.



- The notation “(See RRP X.Y)” in a RRP step, directs you to another RRP to see how to perform a related or pre-requisite procedure.
- The notation “(Figure X.Y)” points to the illustration that corresponds to the RRP you are performing.
- The notation “(PLX)” indicates that this component is listed in the PLX parts list.
- Arrows in an illustration show direction of movement when removing a component.
- Slashes in a part name indicate that numerous components share the same heading and function. For example, "Gears In/Feed/Out" refers to Gear In, Gear Feed, and Gear Out.

RRP 13.1 Mailbox (Sorter) (PL15.1)



SER453XB

SER453XB

RRP 13.1 Mailbox (Sorter) (PL15.1)

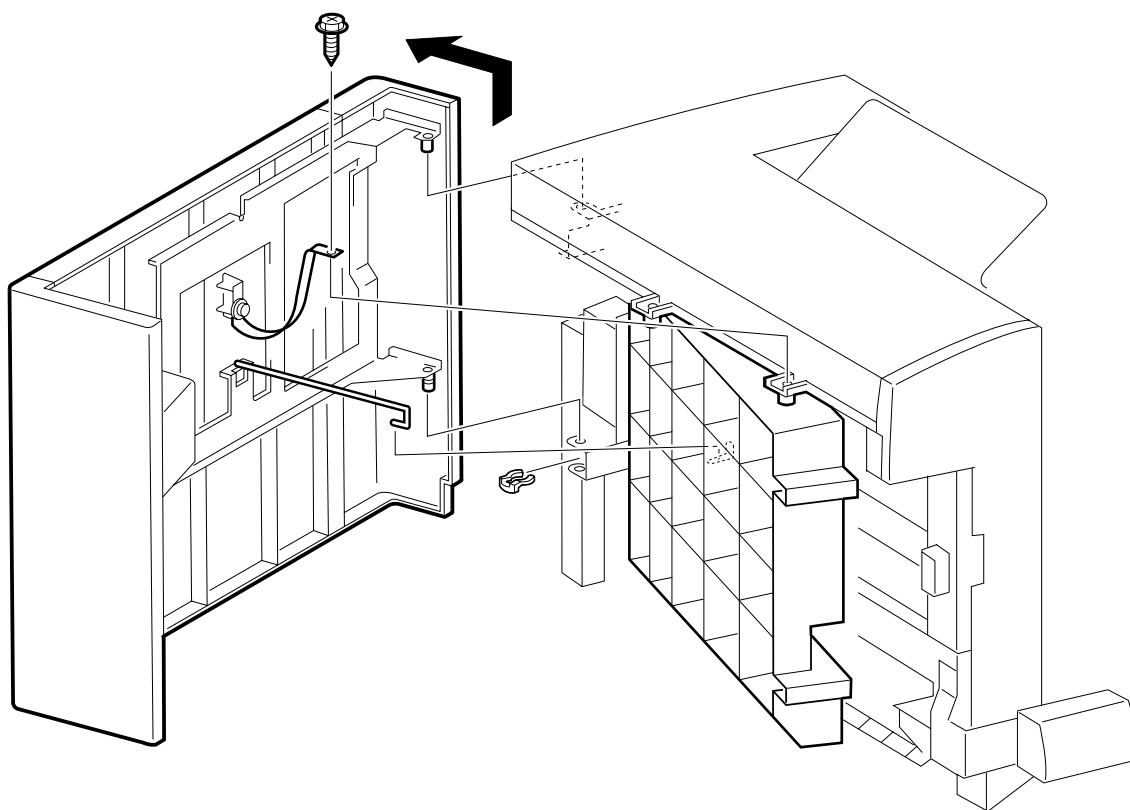
Removal

1. Disconnect P612 from the jack that is located at the rear of the printer.
2. Unhook and remove the Stopper.
3. Lift the Mailbox off of the Rack, and place the Mailbox on a level and stable surface.
4. Press in on the latches securing the Rack to the Left and Right Brackets and lift the Rack up and off of the Brackets.
5. Remove the thumbscrew securing the Right Bracket to the printer, lift the Bracket up to release the tabs, and remove the Bracket.
6. Remove the thumbscrew securing the Left Bracket to the printer, lift the Bracket up to release the tabs, and remove the Bracket.
7. Remove the four screws securing the Stand L Connection to the Left Bracket and remove the Stand L Connection.
8. Remove the two screws securing Stand R to the Stand L Connection and remove Stand R.
9. Remove the two screws securing Stand L to the Right Bracket, and remove Stand L.

Replacement

1. Attach Stand R to the Stand L Connection, and use two screws to secure Stand R.
2. Attach the Stand L Connection to the Left Bracket, and use four screws to secure the Stand L Connection.
3. Attach the Left Bracket to the left side of printer by first inserting the two metal tabs on the back of the Bracket into the two holes in the left side of the printer.
4. Slide the Left Bracket down to lock the tabs in place.
5. Use a thumbscrew to secure the Left Bracket to the printer.
6. Attach Stand L to the Right Bracket, and use two screws to secure Stand L.
7. Attach the Right Bracket to the right side of the printer by first inserting the two metal tabs on the back of the Bracket into the two holes in the right side of the printer.
8. Slide the Right Bracket down to lock the tabs in place.
9. Use a thumbscrew to secure the Right Bracket to the printer.
10. Slide the legs of the Rack into the tops of the Left and Right Brackets.
11. Push down on the Rack until it locks into place.
12. Reinstall the Mailbox by carefully lowering the opening in the Mailbox support arm, onto the pin at the top of the Rack.
13. Position the Stopper so when it is installed it blocks paper from exiting the right side of the Mailbox bins.
14. Hook one end of the Stopper through the hole at the tip of Tray 1, and hook the other end of the Stopper through the hole at the tip of Tray 10.
15. Plug P612 into the jack that is located at the rear of the printer.

RRP 13.2 Sorter Left Cover Assembly (PL15.2)



SER243F

SER243F

RRP 13.2 Sorter Left Cover Assembly (PL15.2)

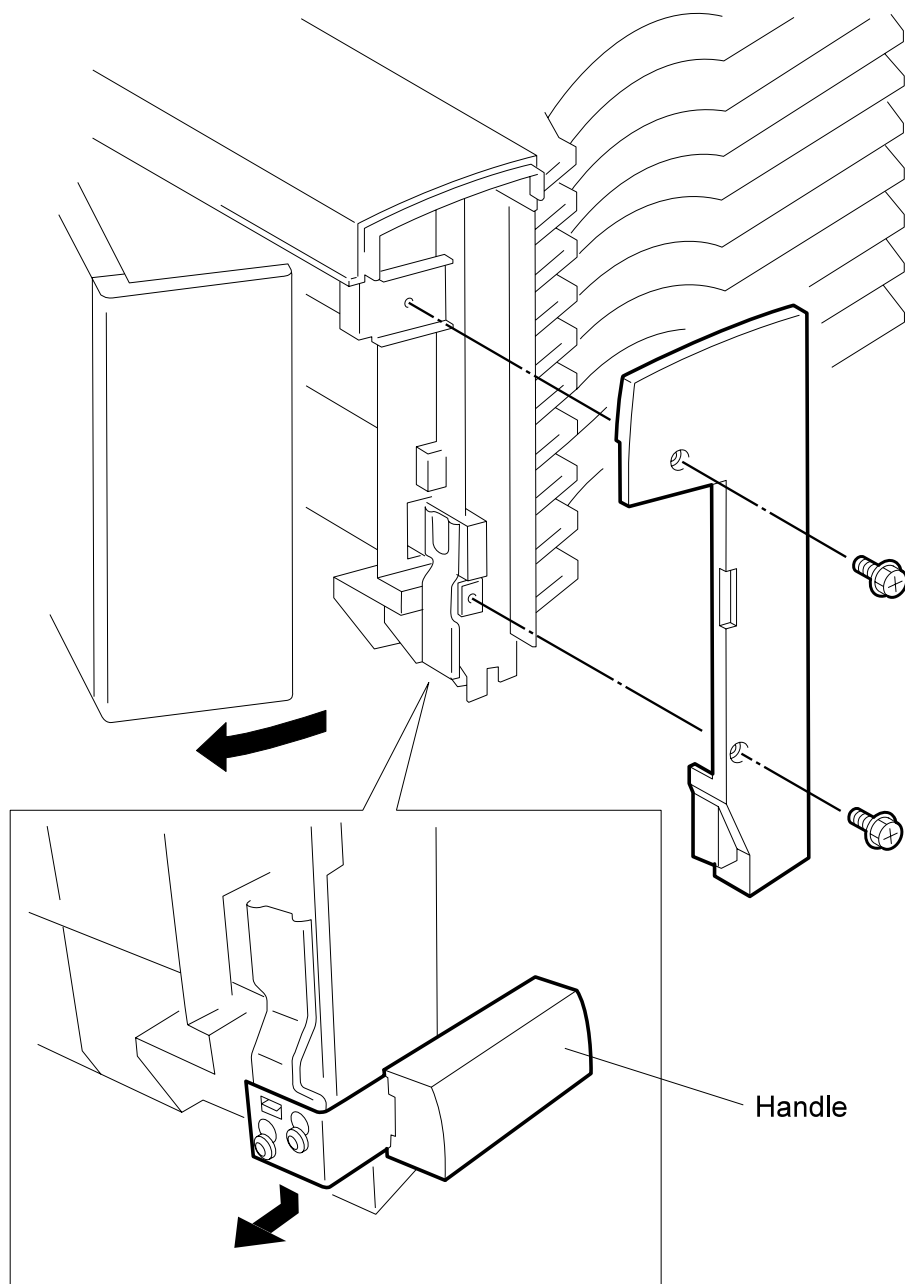
Removal

1. Remove the screw securing the Left Cover Strap to the Sorter Top Cover.
2. Unhook the Left Cover Hook from the Sorter Frame Assembly.
3. Remove the KL clip from the Sorter Left Cover Assembly.
4. Lift the Cover up and off of the Sorter.

Replacement

1. Position the Left Cover Assembly approximately half way open, and reinstall it onto the Sorter.
2. Use a KL clip to secure the Left Cover to the Sorter.
3. Rehook the Left Cover Hook onto the Sorter Frame Assembly.
4. Reinstall the Left Cover Strap to the Sorter Top Cover, and use one screw to secure the Strap.

RRP 13.3 Sorter Front Cover (PL15.2)



SER384XA

SER384XA

RRP 13.3 Sorter Front Cover (PL15.2)

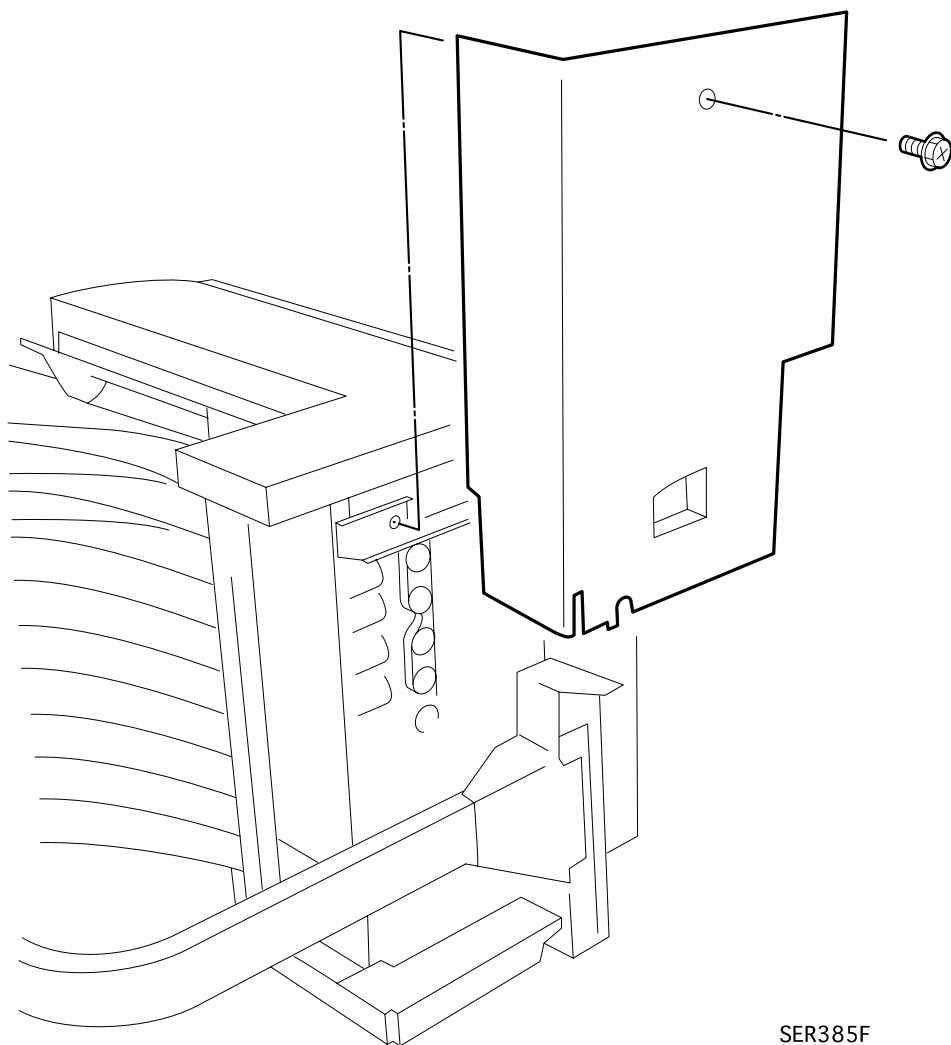
Removal

1. Open the Sorter Left Cover Assembly.
2. Push down on the Handle and remove it from the Mailbox frame.
3. Remove the two screws securing the Sorter Front Cover to the Sorter, and remove the Front Cover.

Replacement

1. Reinstall the Front Cover onto the Sorter frame.
2. Use two screws to secure the Front Cover to the frame.
3. Reinstall the Handle.
4. Close the Sorter Left Cover Assembly.

RRP 13.4 Sorter Rear Cover (PL15.2)



SER385F

SER385F

RRP 13.4 Sorter Rear Cover (PL15.2)

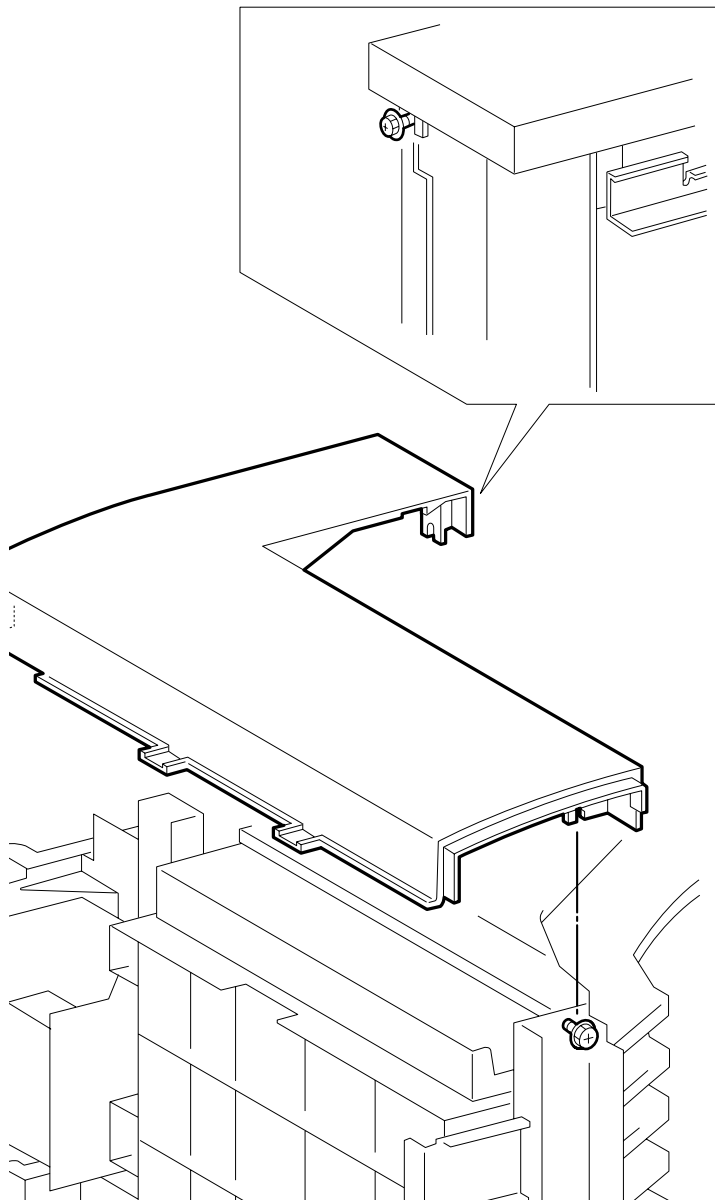
Removal

1. Remove the screw securing the Rear Cover to the Sorter frame.
2. Remove the Rear Cover from the Sorter frame.

Replacement

1. Reinstall the Rear Cover onto the Sorter frame.
2. Use one screw to secure the Rear Cover to the Sorter frame.

RRP 13.5 Sorter Top Cover (PL15.2)



RRP 13.5 Sorter Top Cover (PL15.2)

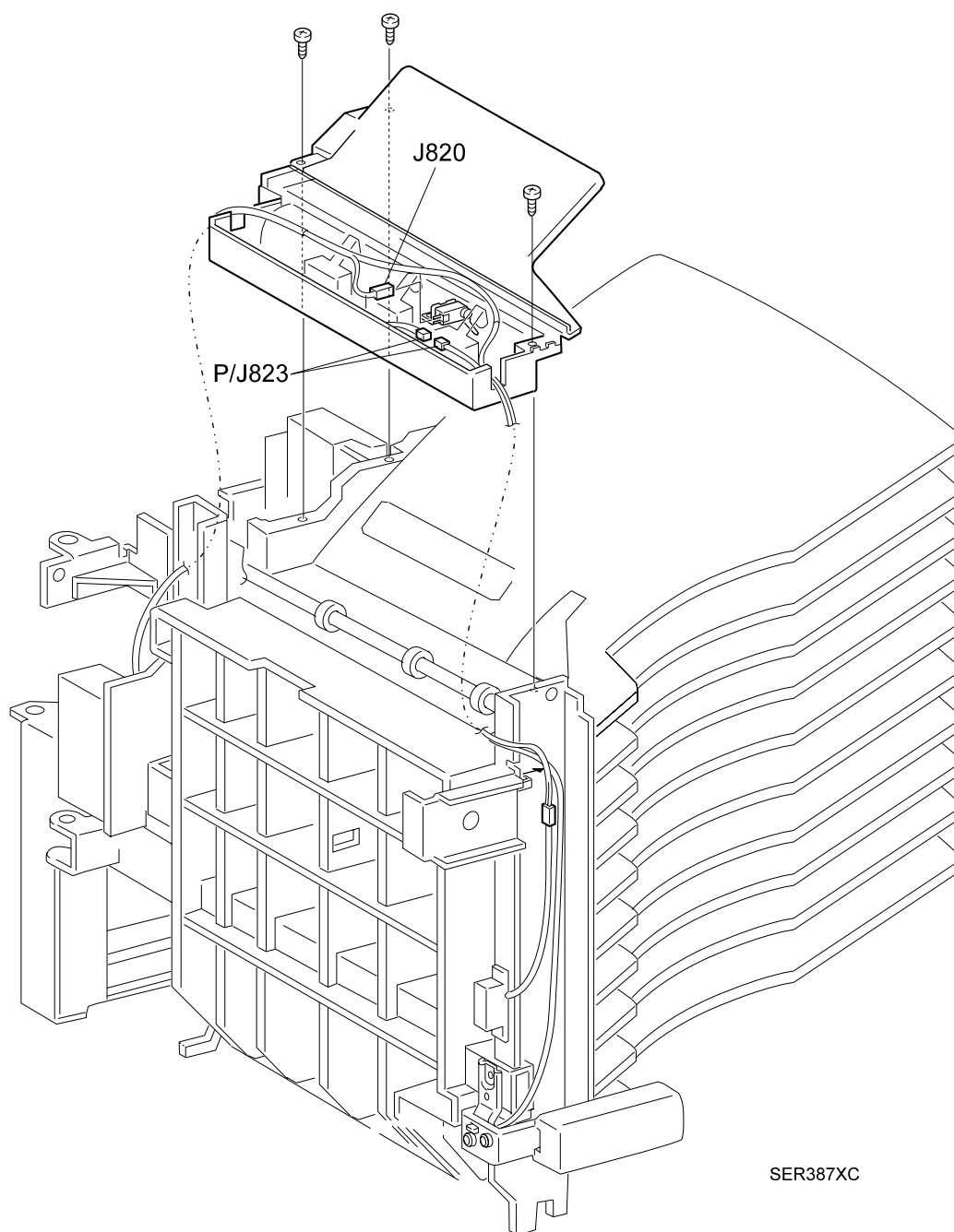
Removal

1. Remove Sorter Left Cover Assembly (RRP 13.2).
2. Remove the Sorter Front Cover Assembly (RRP 13.3).
3. Remove the Sorter Rear Cover Assembly (RRP 13.4).
4. Loosen the three screws securing the Top Cover to the Sorter frame, and remove the Top Cover.

Replacement

1. Reinstall the Sorter Top Cover to the Sorter frame, making sure you line up the slots in the Cover with the screws in the frame.
2. Tighten the three screws to secure the Top Cover to the frame.
3. Reinstall the Sorter Rear Cover Assembly (RRP 13.4).
4. Reinstall the Sorter Front Cover Assembly (RRP 13.3).
5. Reinstall the Sorter Left Cover Assembly (RRP 13.2).

RRP 13.6 Actuator Cover Assembly (PL15.3)



SER387XC

RRP 13.6 Actuator Cover Assembly (PL15.3)

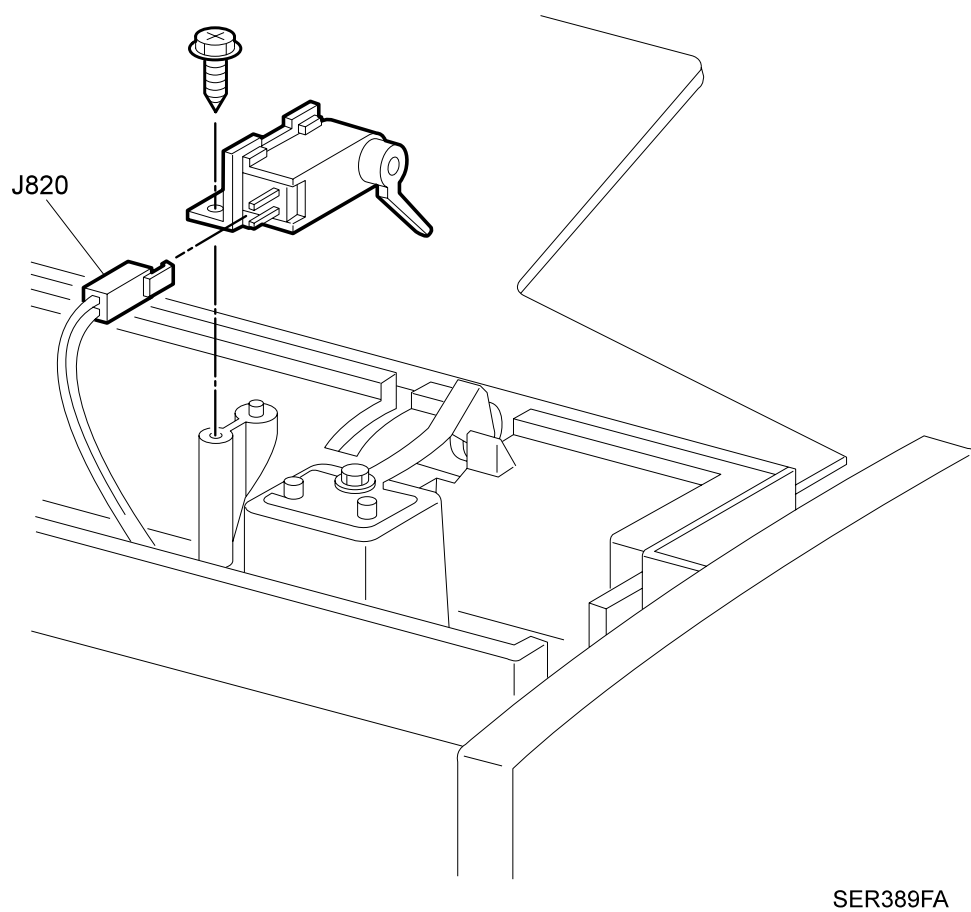
Removal

1. Remove the Sorter Top Cover Assembly (RRP 13.5).
2. Disconnect P/J 820 from the BIN 1 Jam Sensor.
3. Disconnect P/J 823 running to the Vertical Sensor.
4. Pull all of the wires free of the wire clips at the top of the Actuator cover.
5. Remove the three screws securing the Actuator Cover Assembly to the frame, lift the Cover free of the wire harness and remove it from the Mailbox.

Replacement

1. Position the Actuator Cover Assembly over the top of the Sorter.
2. Reach under the Actuator Cover and pull the Full Stack Actuator 2 up and out of the way.
3. Reinstall The Actuator Cover Assembly onto the Sorter.
4. Use three screws to secure the Actuator Cover to the Sorter.
5. Reinstall the wire harness under the wire clips located on the side of the Actuator Cover and reconnect the BIN 1 Jam Sensor P/J.
6. Reinstall the Sorter Top Cover Assembly (RRP 13.5).

RRP 13.7 BIN 1 Jam Sensor (PL15.3)



SER389FA

RRP 13.7 BIN 1 Jam Sensor (PL15.3)

Removal

1. Remove the Sorter Top Cover Assembly (RRP 13.4).
2. Disconnect P/J 820 from the BIN 1 Jam Sensor.
3. Remove the screw securing the BIN 1 Jam Sensor to the Actuator Cover.
4. Remove BIN 1 Jam Sensor from the Actuator Cover.

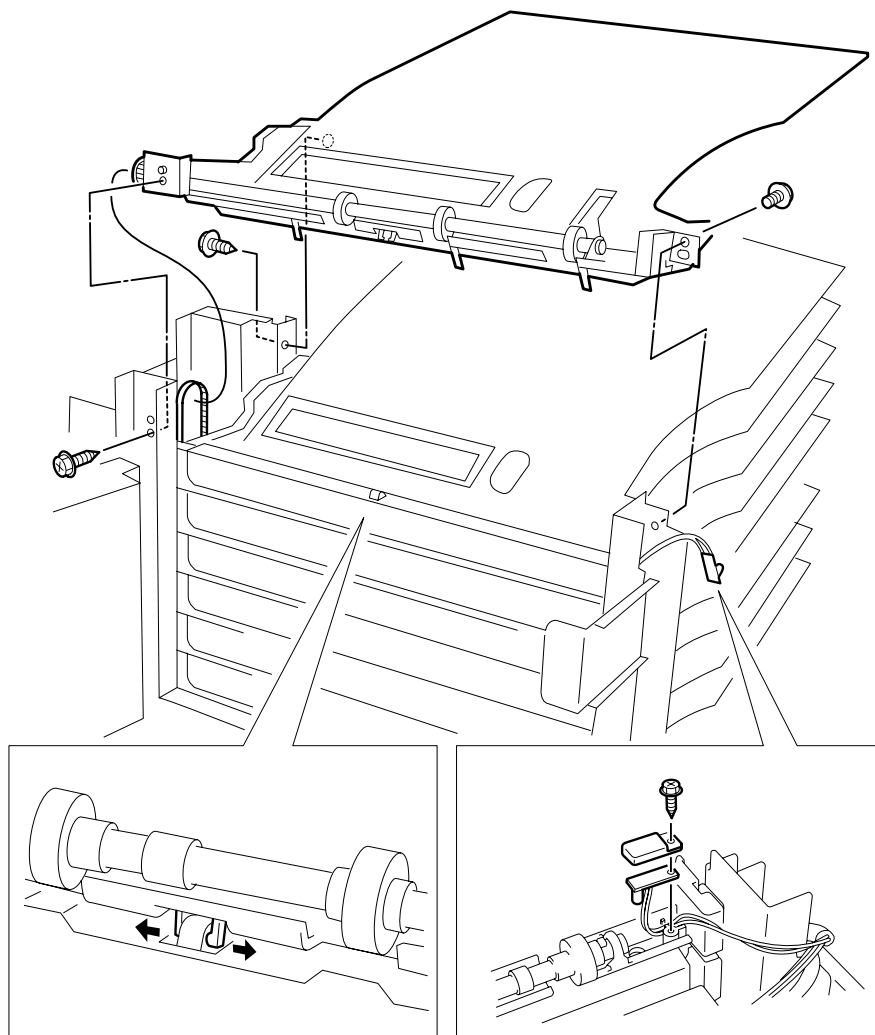
Replacement

1. Reinstall BIN 1 Jam Sensor to the Actuator Cover.

Make sure you insert the Sensor actuator through the rectangular slot in the Cover.

2. Use one screw to secure the Sensor to the Cover.
3. Reconnect P/J 820 to the BIN 1 Jam Sensor.
4. Reinstall the Sorter Top Cover Assembly (RRP 13.5).

RRP 13.8 BIN 1 Tray Assembly (PL15.4)



Inset 2

Inset 1

SER390XA

SER390XA

RRP 13.8 BIN 1 Tray Assembly (PL15.4)

Removal

1. Remove the Paper Stopper (RRP 13.1).
2. Remove the Actuator Cover Assembly (RRP 13.6).
3. Remove the screw securing the LED and the LED Cover to the BIN 1 Tray Assembly, and remove the LED and LED Cover (Inset 1).
4. Slip the Drive Belt off of BIN 1 Drive Pulley.
5. Remove the three screws securing BIN 1 Tray to the Mailbox frame.
6. Pull out on latch arms to release the latch that is securing BIN 1 Tray Assembly to BIN 2 Gate (inset 2) and remove BIN 1 Tray Assembly.

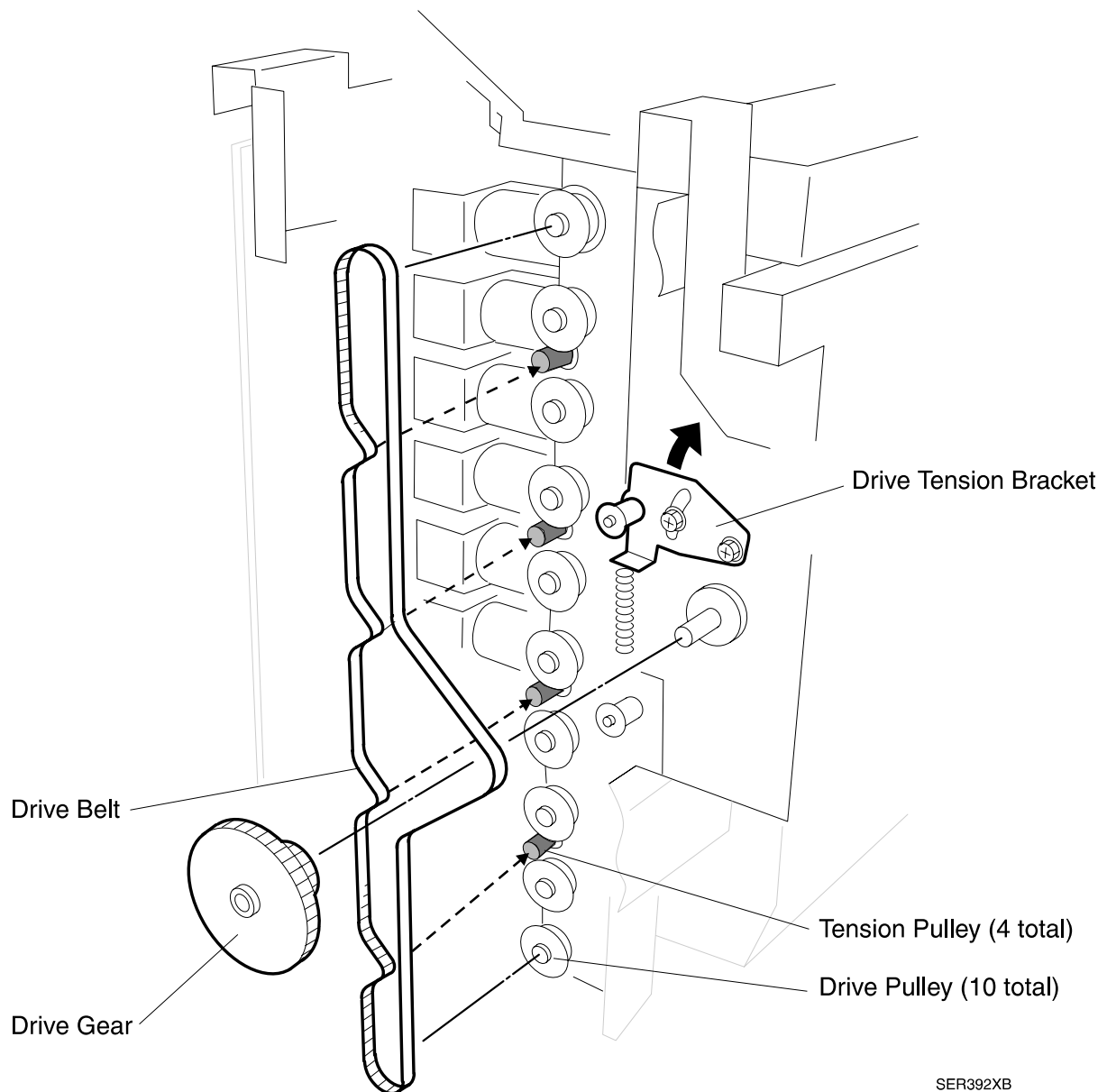
Replacement

1. Reinstall BIN 1 Tray onto the Mailbox frame.

Make sure the tabs on the Tray line up with the slots in the frame.

2. Open the Sorter Chute (PL13.3.12) so you can access BIN 2 Gate.
3. Hold on to BIN 2 Gate while you press down on the Tray Assembly so the latch arms on the Tray Assembly latch onto BIN 2 Gate.
4. Use three screws to secure BIN 1 Tray to the Mailbox frame.
5. Slip the Drive Belt onto BIN 1 Drive Pulley.
6. Reinstall the LED and the LED Cover, and use one screw to secure them to the BIN 1 Tray Assembly.
7. Reinstall the Actuator Cover Assembly (RRP 13.6).
8. Reinstall the Paper Stopper (RRP 13.1).

RRP 13.9 Sorter Drive Belt (PL15.4)



SER392XB

SER392XB

RRP 13.9 Sorter Drive Belt (PL15.4)

Removal

1. Remove Sorter Left Cover Assembly (RRP 13.2).
2. Remove the Sorter Rear Cover Assembly (RRP 13.4).
3. Remove the Sorter Drive Motor Assembly (RRP 13.17).
4. Slide the Sorter Drive Gear off of the shaft.
5. Slip the Sorter Drive Belt off of the Drive Pulleys.

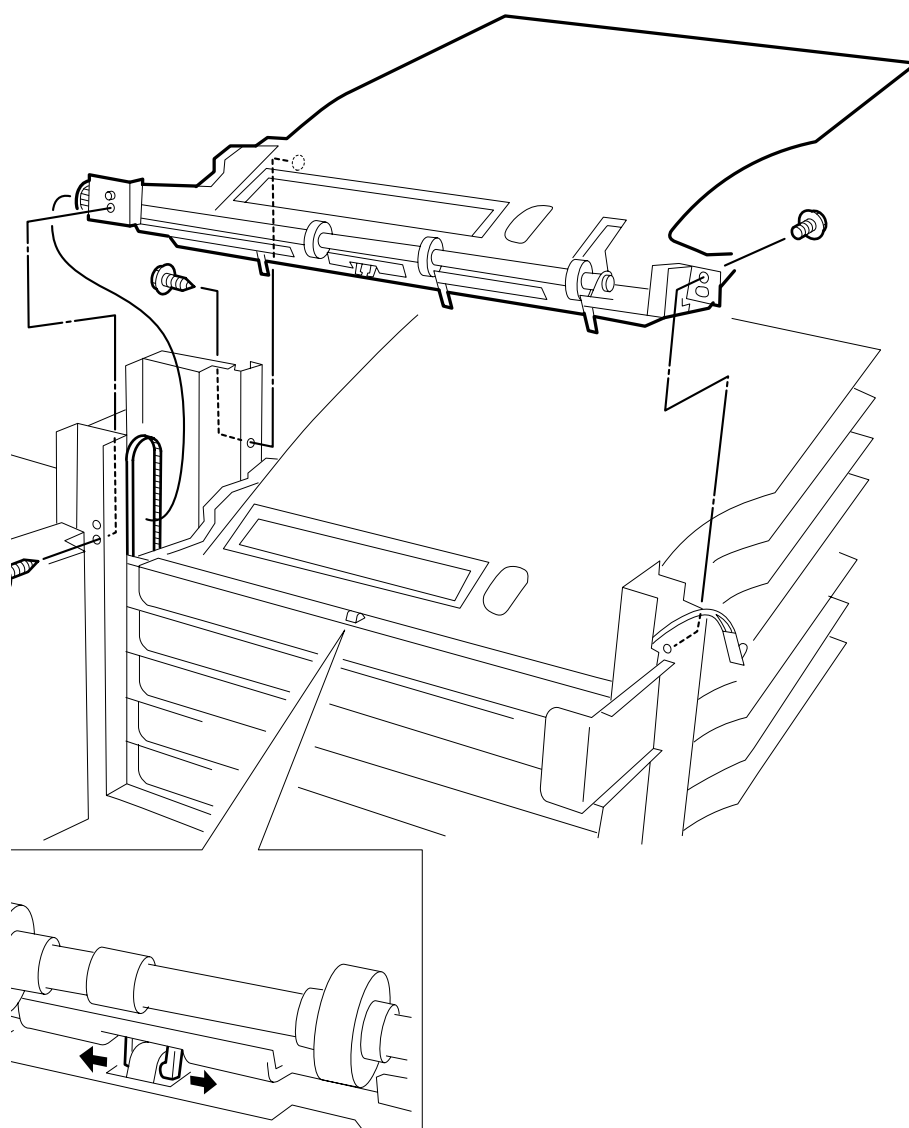
Replacement

1. Position the Sorter Belt as shown in the illustration, and reinstall the Belt onto the Drive Pulleys.

Make sure you reinstall the Belt over the four Tension Pulleys, as shown by the arrows in the illustration.

2. Reinstall the Sorter Drive Gear.
3. Push up on the Sorter Drive Tension Bracket while you reinstall the Belt onto the Sorter Drive Gear.
4. Reinstall the Sorter Drive Motor Assembly (RRP 13.17).
5. Reinstall the Sorter Rear Cover Assembly (RRP 13.4).
6. Reinstall the Sorter Left Cover Assembly (RRP 13.2).

RRP 13.10 BIN Trays 2 ~ 10 Assemblies (PL15.5)



RRP 13.10 BIN Trays 2 ~ 10 Assemblies (PL15.5)

NOTE

This RRP describes the removal and replacement of a single BIN Tray, from BIN 2 through BIN 10. When removing a BIN Tray start by removing BIN Tray 1 (RRP 13.8), then remove BIN Tray 2 (RRP 13.10). Remove the BIN Trays sequentially, 2 through 10, by repeating the steps in this RRP for each remaining Tray.

Removal

1. Remove the Paper Stopper (RRP 13.1).
2. Remove the Actuator Cover Assembly (RRP 13.6).
3. Remove BIN 1 Tray Assembly (RRP 13.8).
4. Remove Gate 2 Solenoid (RRP 13.11).
5. Pull out on latch arms to release the latch that is securing BIN 2 Tray Assembly to BIN 3 Gate and remove Bin 2 Tray Assembly.
6. Remove the three screws securing BIN 2 Tray to the Mailbox frame.
7. Slide Bin 2 Drive Pulley out of the Drive Belt and remove BIN 2 Tray Assembly.

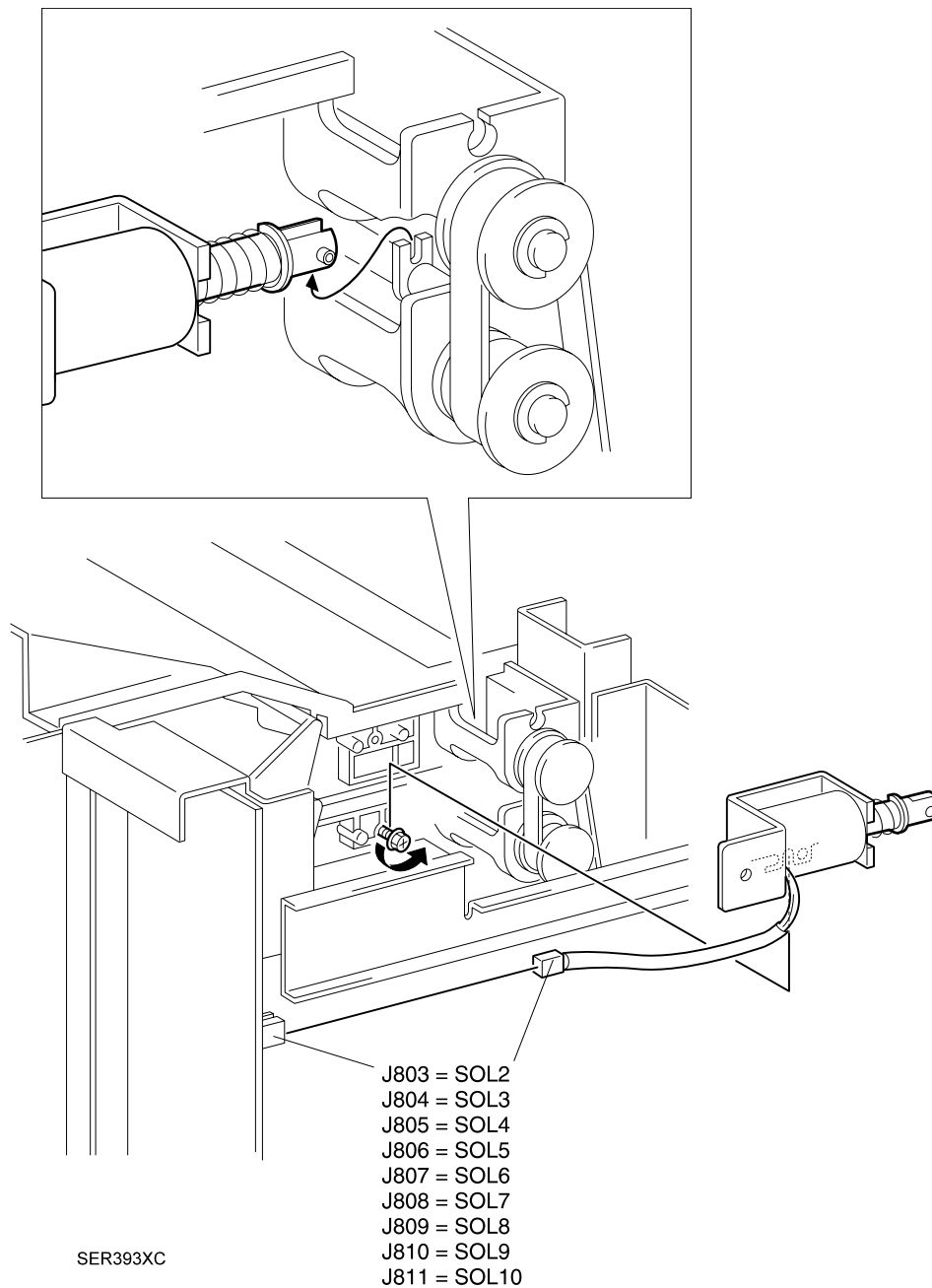
Replacement

1. Reinstall BIN 2 Tray onto the Mailbox frame.

Make sure the tabs on the Tray line up with the slots in the frame.

2. Open the Sorter Chute (PL 13.3.12) so you can access BIN 3 Gate.
3. Hold on to BIN 3 Gate while you press down on the Tray Assembly so the latch arms on the Tray Assembly latch onto BIN 3 Gate.
4. Use three screws to secure BIN 2 Tray to the Mailbox frame.
5. Slip the Drive Belt onto BIN 2 Drive Pulley.
6. Reinstall Gate 2 Solenoid (RRP 13.11).
7. Reinstall BIN 1 Tray Assembly (RRP 13.8)
8. Reinstall the Actuator Cover Assembly (RRP 13.6).
9. Reinstall the Paper Stopper (RRP 13.1).

RRP 13.11 Gate Solenoids 2 ~ 10 (PL15.5)



SER393XC

SER393XC

RRP 13.11 Gate Solenoids 2 ~ 10 (PL15.5)

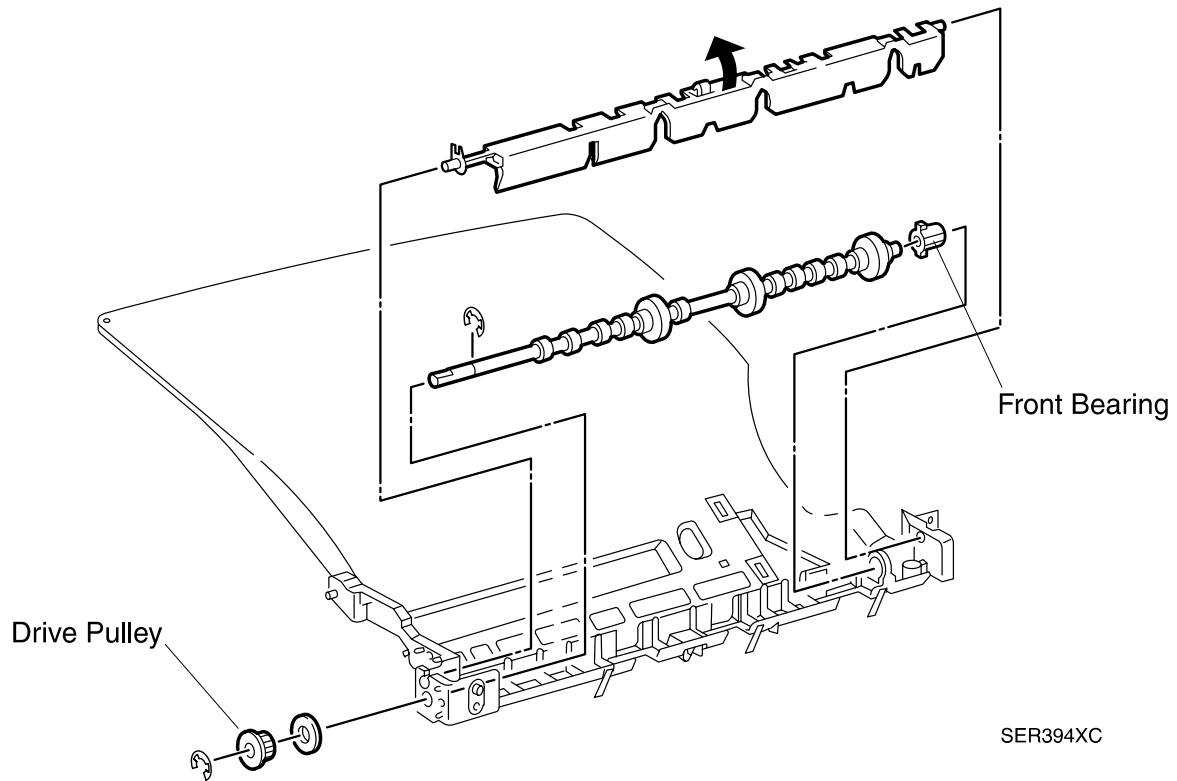
Removal

1. Remove the Paper Stopper (RRP 13.1).
2. Remove the Sorter Top Cover Assembly (RRP 13.5).
3. Remove BIN Tray 1 (RRP 13.8).
4. Disconnect P/J 803 (Solenoid 2) from the Sorter PWB.
5. Loosen, do not remove, the screw securing Solenoid 2 to the Mailbox frame.
6. Release the Solenoid plunger from the end of Gate 2, and remove Solenoid 2.
7. Remove BIN Tray 2 (RRP 13.10).
8. Disconnect P/J 804 (Solenoid 3) from the Sorter PWB.
9. Loosen, do not remove, the screw securing Solenoid 3 to the Mailbox frame.
10. Release the Solenoid plunger from the end of Gate 3, and remove Solenoid 3.
11. Repeat steps 7 through 10 to access and remove the other Gate Solenoids.

Replacement

1. Reinstall the highest Solenoid number first (10 ~ 2) onto the Mailbox frame, making sure you line up the positioning holes in the Solenoid bracket with the positioning tabs on the frame.
2. Insert the Solenoid plunger into the end of the Gate (see the insert in figure)
3. Tighten the screw to secure the Solenoid to the frame.
4. Reconnect the Solenoid P/J to the Sorter Control PWB.
5. Reinstall the BIN Tray you removed in order to reach the specific Solenoid (RRP 13.8 or RRP 13.10).
6. Repeat steps 1 through 5 to reinstall the remaining Solenoid(s) and BIN Tray(s).
7. Reinstall the Sorter Top Cover Assembly (RRP 13.5).
8. Reinstall the Paper Stopper (RRP 13.1).

RRP 13.12 Sorter Exit Roll (PL15.5)



SER394XC

RRP 13.12 Sorter Exit Roll (PL15.5)

NOTE

This RRP covers the removal and replacement of a BIN 1 Exit Roll. When removing Sorter Exit Rolls start with BIN 1 and procedure sequentially to BIN 10. Remove Exit Rolls 2 through 10 by repeating the steps in this RRP for each Roll in the Sorter.

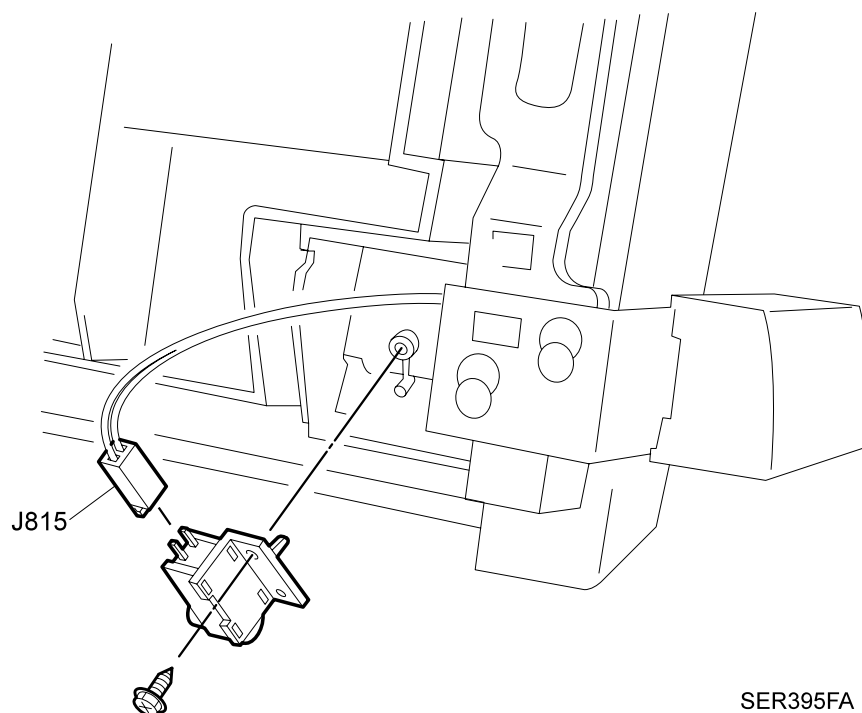
Removal

1. Remove the Actuator Cover Assembly (RRP 13.6).
2. Remove the Bin Tray Assembly of the Exit Roll you want to remove (RRP 13.8 and RRP 13.10).
3. Rotate the Gate 90° and remove it from the Bin Tray Assembly.
4. Remove the two E-rings from the Pulley end of the Sorter Exit Roll.
5. Slide the Drive Pulley and Collar off of the Roll.
6. Slide the Roll out of the holes in the Bin Tray, and remove the Roll.

Replacement

1. Slide the Front Bearing onto the Roll.
2. Align the Sorter Exit Roll so the keyed end of the Roll is positioned on the drive side of the Bin Tray.
3. Slide the ends of the Exit Roll into the holes in the Tray.
4. Rotate the Rear Bearing until it slides into the hole in the Tray.
5. Use an E-ring, behind the Rear Bearing, to secure the Roll to the Tray.
6. Slide the Collar and Drive Pulley onto the end of the Roll.
7. Use an E-ring to secure the Pulley to the Roll.
8. Reinstall the Gate onto the Bin Tray Assembly.
9. Reinstall the Bin Tray Assembly (RRP 13.8 and RRP 13.10).
10. Reinstall the Actuator Cover Assembly (RRP 13.6).

RRP 13.13 Sorter Entrance Sensor (PL15.6)



SER395FA

RRP 13.13 Sorter Entrance Sensor (PL15.6)

Removal

1. Open the Left Cover Assembly.
2. Remove the screw securing the Sorter Entrance Sensor to the Sorter frame, and remove the Sensor.
3. Disconnect the P/J from the Sorter Entrance Sensor.

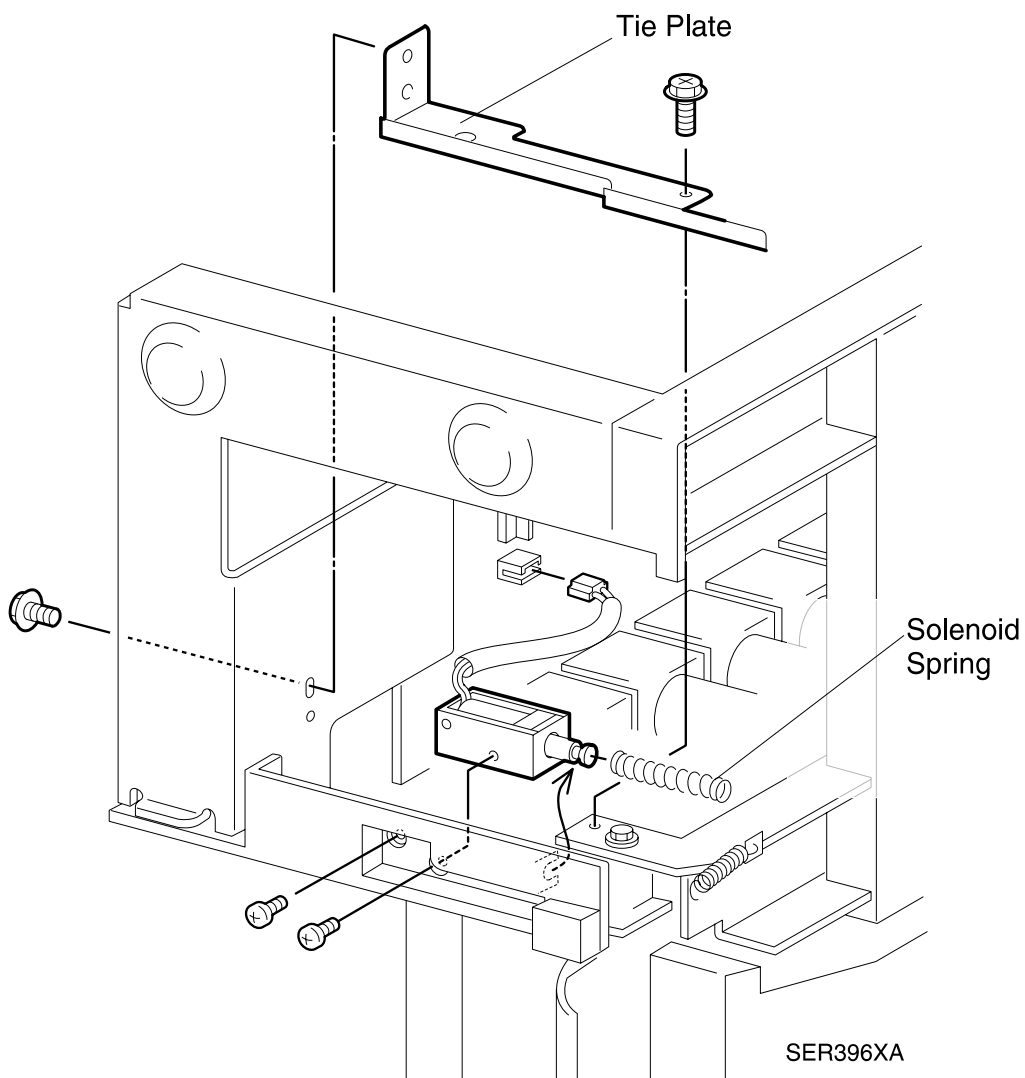
Replacement

1. Reconnect the Sorter Entrance Sensor P/J.
2. Reinstall the Sorter Entrance Sensor, and use one screw to secure it to the Sorter frame.

Make sure you insert the Sensor actuator through the rectangular slot.

3. Close the Left Cover Assembly.

RRP 13.14 IN Gate Solenoid (PL15.6)



SER396XA

RRP 13.14 IN Gate Solenoid (PL15.6)

Removal

1. Remove the Sorter Rear Cover Assembly (RRP 13.4).
2. Lift the Mailbox off of the printer (RRP 13.1) and set it down on the Front Cover.
3. Disconnect P/J 812 (In Solenoid) from the Sorter Control PWB.
4. Remove the two screws securing the Tie Plate to the frame, and remove the Tie Plate.
5. Remove the two small brass screws securing the IN Gate Solenoid to the Rear Lower Cover.
6. Slide the Solenoid plunger out of the IN Gate Link and remove the IN Gate Solenoid from the Mailbox frame.

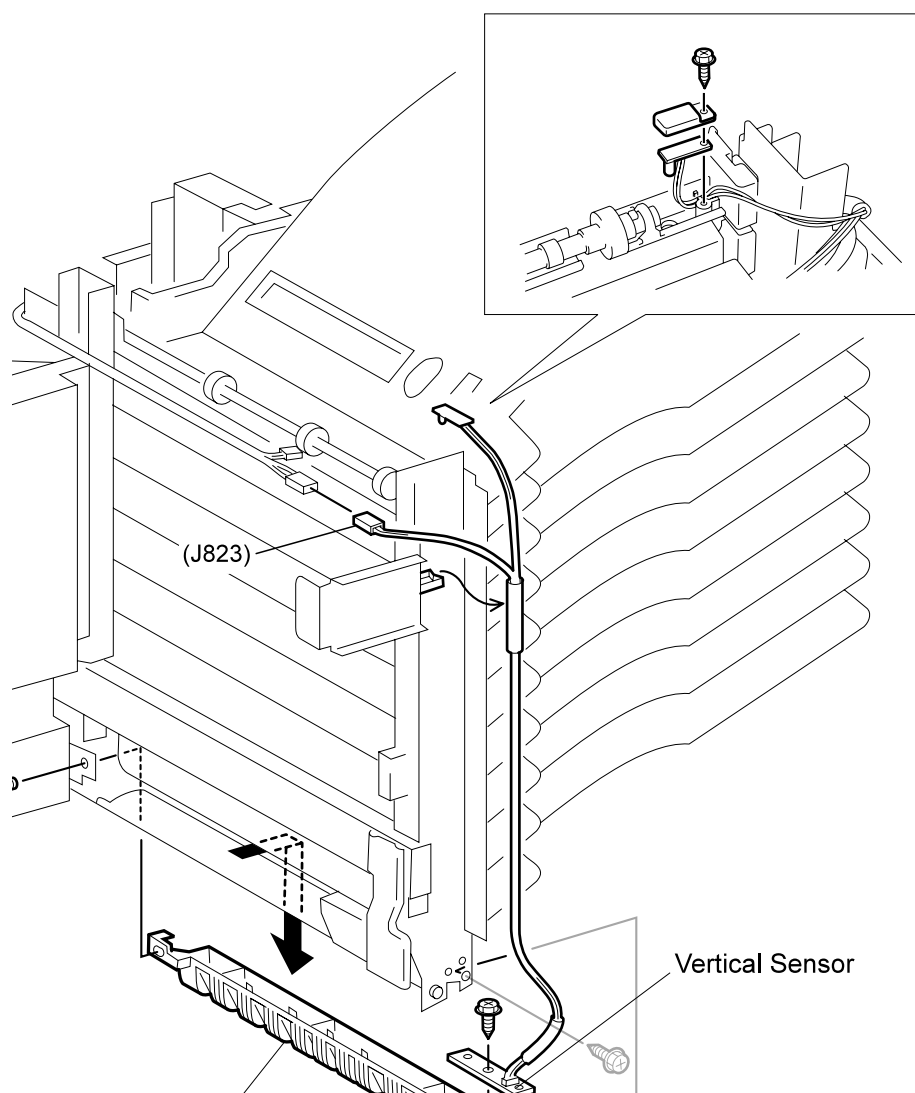
NOTE

Do not lose the IN Gate Solenoid Spring or the two small brass screws.

Replacement

1. Reinstall the IN Gate Solenoid Spring onto the Solenoid plunger.
2. Slide the end of the Solenoid plunger into the slot in the IN Gate Link.
3. Reinstall the Solenoid and attached IN Gate Link onto the frame, making sure the tab on the Link fits into the slot in the frame.
4. Use two small brass screws to secure the Solenoid to the frame.
5. Reinstall the Tie Plate to the frame, and use two screws to secure the Tie Plate.
6. Reconnect P/J 812 to the Sorter Control PWB.
7. Reinstall the Mailbox onto the printer (RRP 13.1).
8. Reinstall the Sorter Rear Cover Assembly (RRP 13.4).

RRP 13.15 Vertical LED / Sensor (PL15.6)



RRP 13.15 Vertical LED / Sensor (PL15.6)

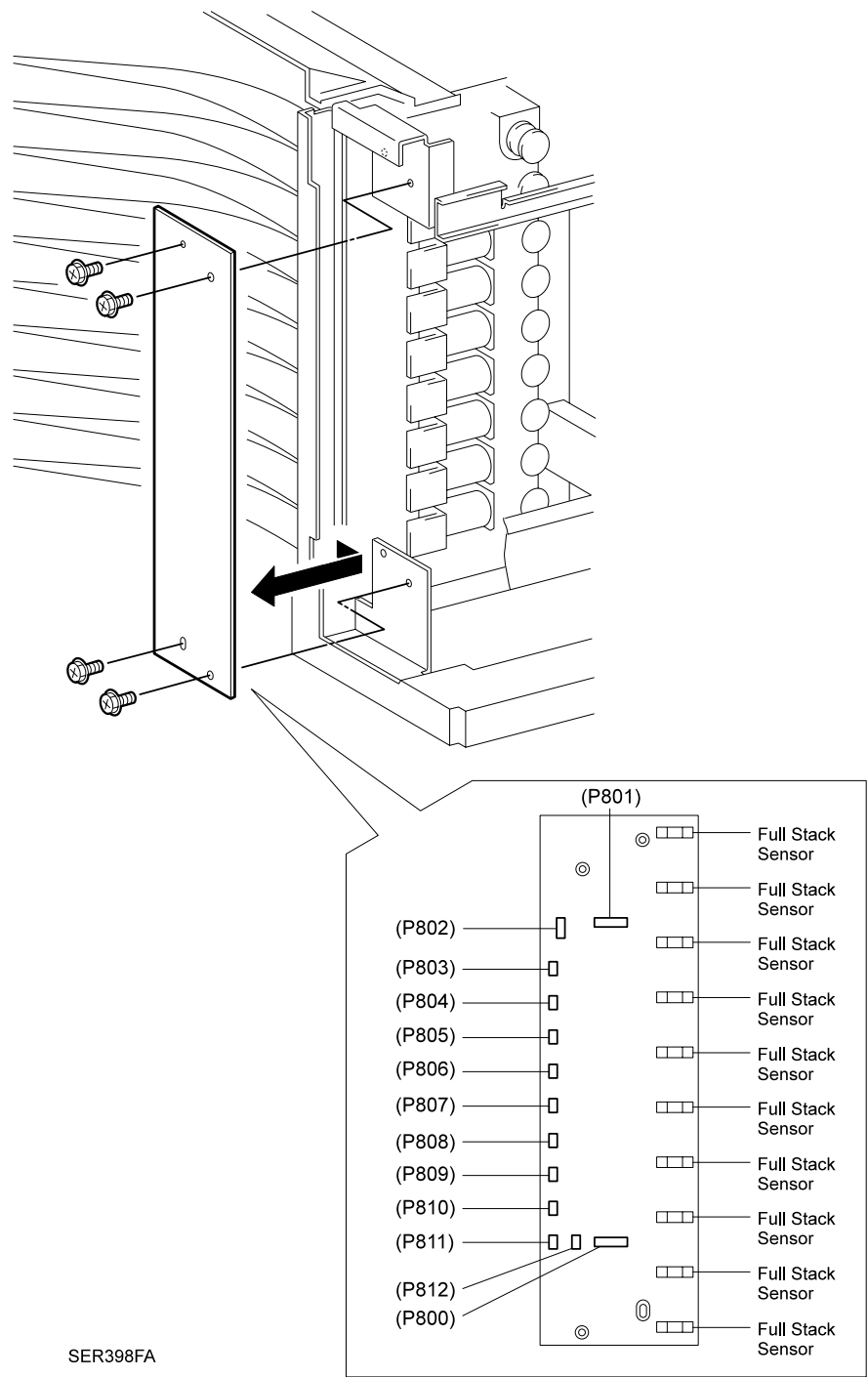
Removal

1. Remove the Actuator Cover Assembly (RRP 13.6).
2. Disconnect P/J 823.
3. Remove the screw securing the LED Cover and LED to the Bin 1 Tray Assembly, and remove the LED Cover and LED (inset in illustration).
4. Remove the Lower Chute (RRP 13.21).
5. Remove the screw securing the Vertical Sensor to the Lower Chute and remove the Sensor, the wire harness, and the LED.

Replacement

1. Reinstall the Vertical Sensor to the Lower Chute, and use one screw to secure it to the Chute.
2. Reinstall the Lower Chute (RRP 13.21).
3. Reroute the wire harness up the front of the Mailbox frame.
4. Reinstall the LED Cover and LED to the Bin 1 Tray Assembly, and use one screw to secure it to the Assembly.
5. Reconnect P/J 823.
6. Reinstall the Actuator Cover Assembly (RRP 13.6).

RRP 13.16 Sorter Control PWB (PL15.7)



SER398FA

SER398FA

RRP 13.16 Sorter Control PWB (PL15.7)

Removal

1. Remove Sorter Left Cover Assembly (RRP 13.2).
2. Remove the Sorter Rear Cover Assembly (RRP 13.4).
3. Disconnect the thirteen P/Js from the Sorter Control PWB.
4. Remove the four screws securing the Sorter Control PWB to the Sorter frame, and remove the PWB.



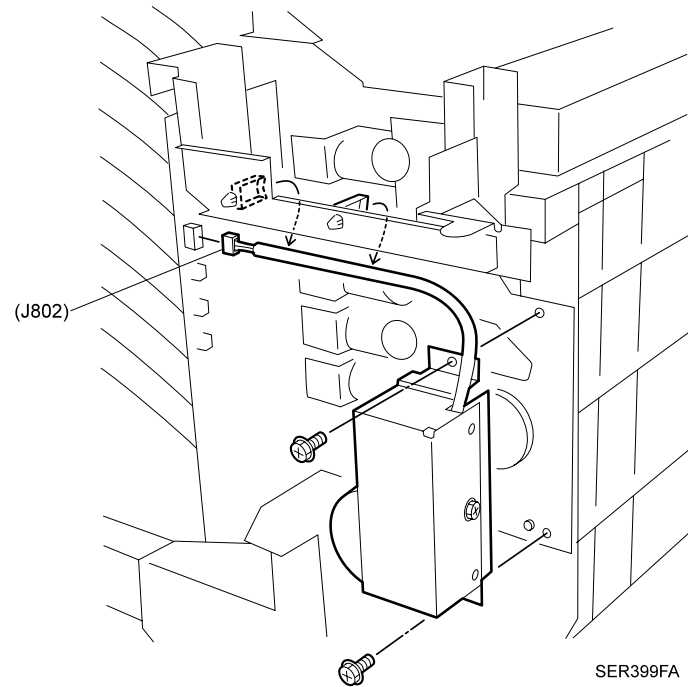
Wear a grounded, electrostatic wrist strap and use caution when working with the Sorter Control PWB. Static electricity can damage the sensitive electronics of the PWB.

Handle the PWB by the edges. Never touch any of the ICs that are mounted on the PWB.

Replacement

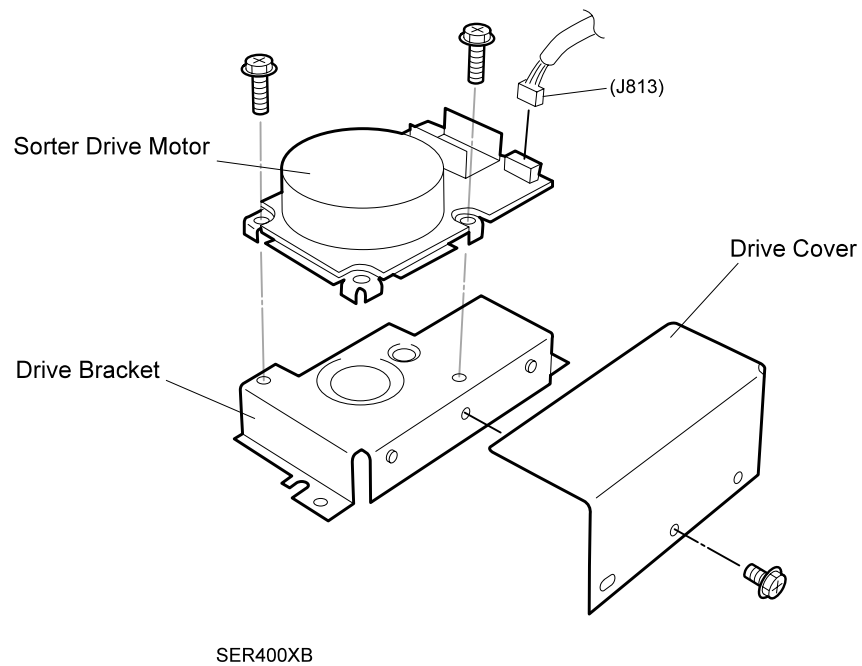
1. Reinstall the Sorter Control PWB to the Sorter frame, and use four screws to secure it to the frame.
2. Make sure all of the Full Stack Actuators move freely between the arms of the Full Stack Sensors.
3. Reconnect the thirteen P/Js (P/J 800 ~ P/J 812) to the Sorter Control PWB.
4. Reinstall the Sorter Rear Cover Assembly (RRP 13.4).
5. Reinstall the Sorter Left Cover Assembly (RRP 13.2).

RRP 13.17 Sorter Drive Motor (PL15.7)



SER399FA

Figure 1



SER400XB

Figure 2

RRP 13.17 Sorter Drive Motor (PL15.7)

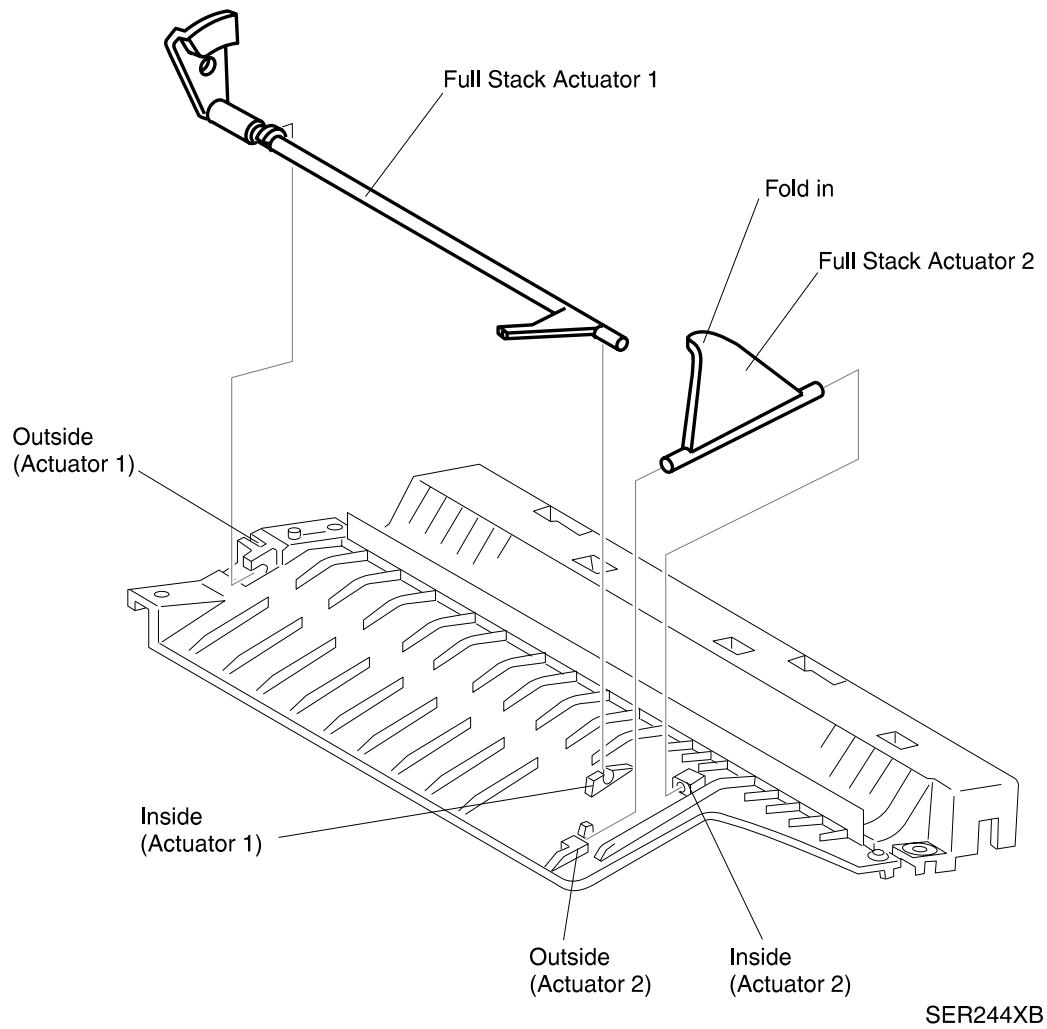
Removal

1. Remove Sorter Left Cover Assembly (RRP 13.2).
2. Remove the Sorter Rear Cover Assembly (RRP 13.4).
3. Disconnect P/J 802 (Drive Motor) from the Sorter Control PWB.
4. Remove the two screws securing the Sorter Drive Motor Assembly to the frame, and remove the Motor Assembly (Figure 1).
5. Remove the screw securing the Sorter Drive Cover to the Sorter Drive Bracket, and remove the Cover (Figure 2).
6. Disconnect P/J 813 from the Drive Motor PWB.
7. Remove the two screws securing the Sorter Drive Motor to the Sorter Drive Bracket, and remove the Motor (Figure 2).

Replacement

1. Reinstall the Sorter Drive Motor to the Sorter Drive Bracket, and use two screws to secure the Motor to the Bracket (Figure 2).
2. Reconnect P/J 813 to the Drive Motor PWB.
3. Reinstall the Sorter Drive Cover to the Sorter Drive Bracket, and use one screw to secure the Cover to the Bracket.
4. Reinstall the Sorter Drive Motor Assembly to the frame, and use two screws to secure the Assembly to the frame (Figure 1).
5. Reconnect P/J 802 to the Sorter Control PWB.
6. Reinstall the Sorter Rear Cover Assembly (RRP 13.4).
7. Reinstall the Sorter Left Cover Assembly (RRP 13.2).

RRP 13.18 Full Stack Actuator (PL15.3)



SER244XB

RRP 13.18 Full Stack Actuator (PL15.3)

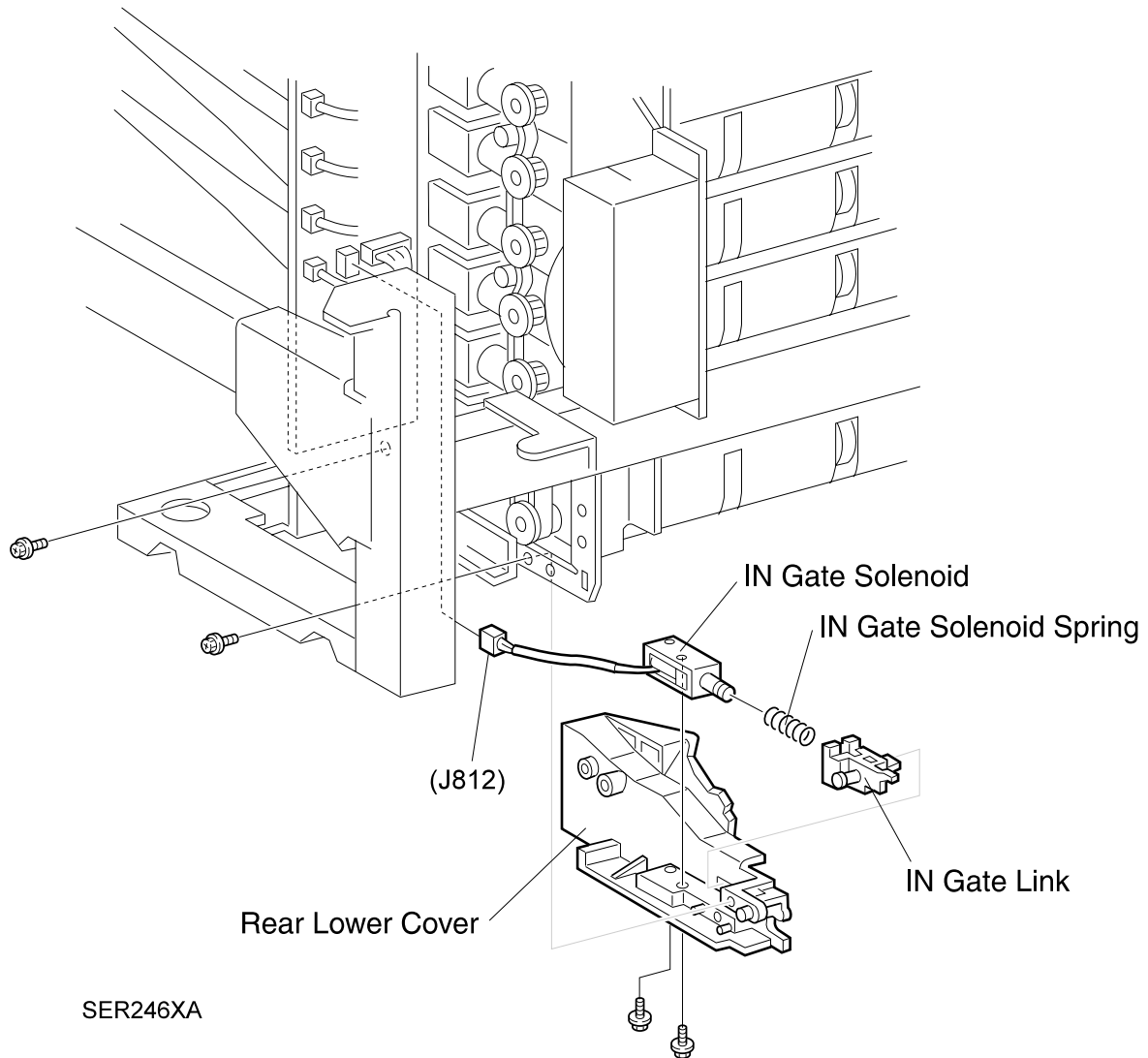
Removal

1. Remove the Actuator Cover Assembly (RRP 13.6).
2. Turn the Actuator Cover upside down.
3. Hold the center of Full Stack Actuator 2 between you fingers and bow the Actuator just enough to free one end it from the Actuator Cover, and remove the Actuator.
4. Pull the outside end of Full Stack Actuator 1 free of the Actuator Cover, and remove the Actuator.

Replacement

1. Position Full Stack Actuator 1 as shown in the figure.
2. Reinstall Full Stack Actuator 1 by first sliding the inside end of the Actuator into the inside slot in the Actuator Cover, then pressing the outside end of the Actuator into the slot near the edge of the Cover.
3. Position Full Stack Actuator 2 as shown in the figure.
4. Reinstall Full Stack Actuator 2 by first sliding the inside end of the Actuator into the inside slot in the Actuator Cover, then pressing the outside end of the Actuator into the slot near the edge of the Cover.
5. Reinstall the Actuator Cover Assembly (RRP 13.6).

RRP 13.19 Rear Lower Cover (PL15.6)



SER246XA

RRP 13.19 Rear Lower Cover (PL15.6)

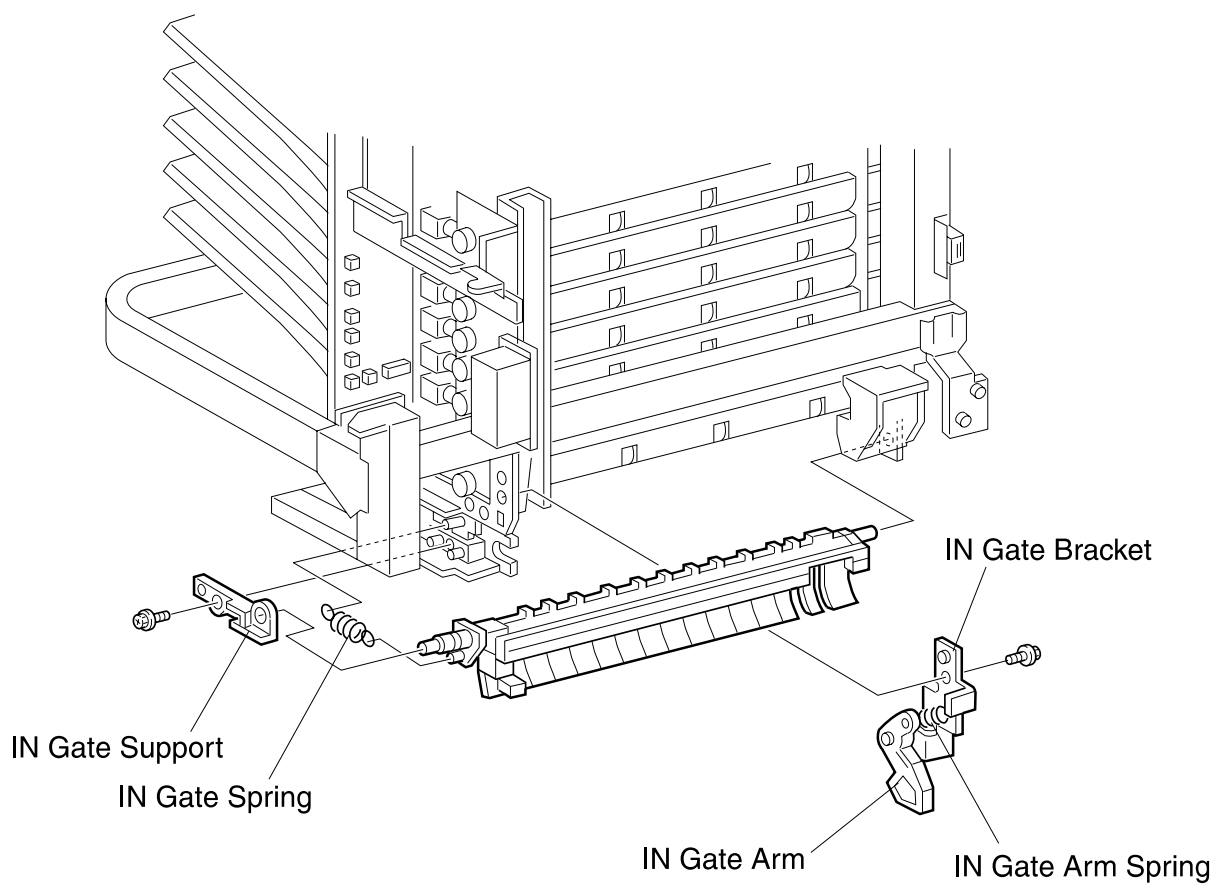
Removal

1. Remove the IN Gate (RRP 13.20).
2. Disconnect P/J 812 (IN Gate Solenoid) from the Sorter Control PWB.
3. Remove the two screws securing the Rear Lower Cover to the Mailbox frame, and remove the Rear Lower Cover, along with the attached. IN Gate Solenoid.
4. Remove the two brass screws securing the IN Gate Solenoid to the Rear Lower Cover, and remove the Solenoid along with the Solenoid Spring and Link.

Replacement

1. Reinstall the IN Gate Link onto the Rear Lower Cover.
2. Reinstall the Solenoid Spring onto the IN Gate Solenoid.
3. Use two brass screws to secure the IN Gate Solenoid to the Rear Lower Cover, making sure the Solenoid plunger hooks into the slot in the Link.
4. Reinstall the Rear Lower cover onto the Mailbox frame.
5. Use two screws to secure the Cover to the frame.
6. Reconnect P/J 812 (IN Gate Solenoid) to the Sorter Control PWB.
7. Reinstall the IN Gate (RRP 13.20).

RRP 13.20 IN Gate (PL15.6)



SER247XB

SER247XB

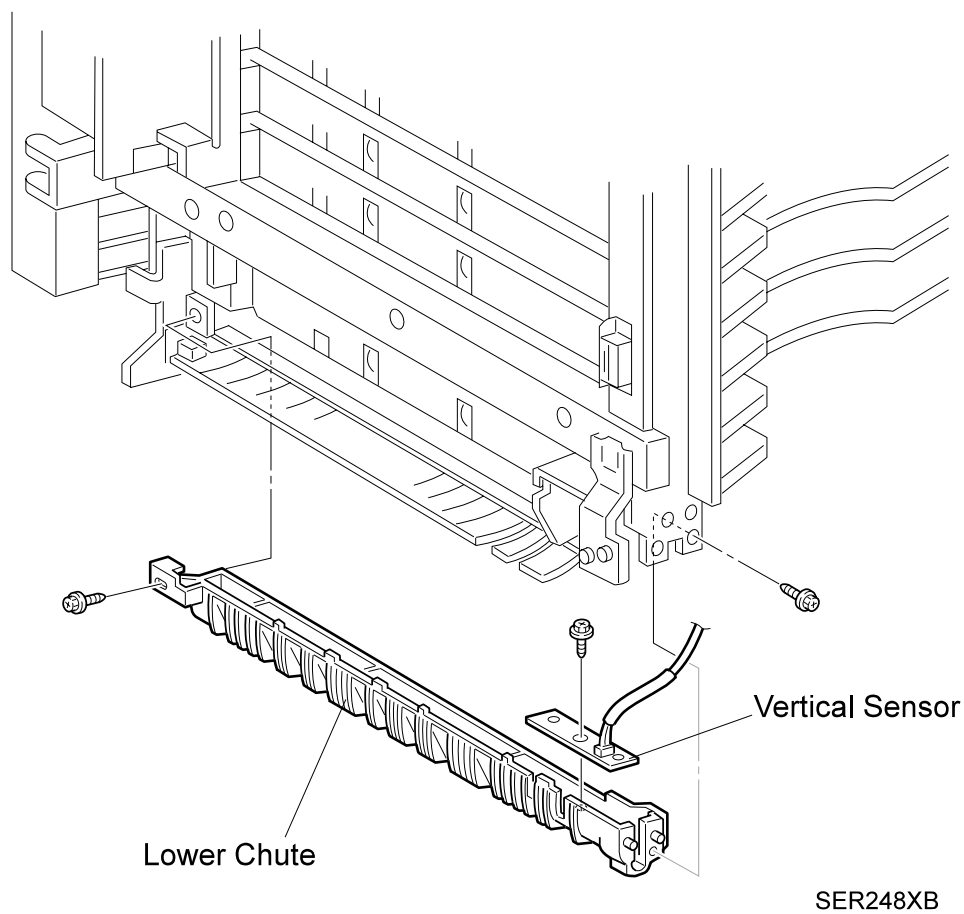
Removal

1. Remove the Lower Chute (RRP 13.21).
2. Remove the Sorter Rear Cover Assembly (RRP 13.4).
3. Lift the Mailbox off of the printer (RRP 13.1) and set it down on the front frame.
4. Remove the screw securing the Gate IN Arm Bracket to the Mailbox frame, and remove the Bracket along with the attached IN Gate Arm and Arm Spring.
5. Unhook the IN Gate Spring from the IN Gate.
6. Remove the screw securing the IN Gate Support to the frame, and remove the Support.
7. Remove the IN Gate.

Replacement

1. Reinstall the IN Gate.
2. Reinstall the IN Gate Support onto the frame, making sure you slide the hole at the end of the Support through the arm of the IN Gate.
3. Use one screw to secure the IN Gate Support to the frame.
4. Hook the IN Gate Spring onto the tab on the end of the IN Gate.
5. Move the IN Gate back and forth to make sure it moves freely and has a spring-action return.
6. Reinstall the Gate IN Arm Bracket, along with the attached IN Gate Arm and Arm Spring.
Make sure the small tab on the Arm is behind, not in front of, the IN Gate tab.
7. Use one screw to secure the Bracket to the frame.
8. Reinstall the Mailbox onto the printer (RRP 13.1).
9. Reinstall the Sorter Rear Cover Assembly (RRP 13.4).
10. Reinstall the Lower Chute (RRP 13.21).

RRP 13.21 Lower Chute (PL15.6)



SER248XB

RRP 13.21 Lower Chute (PL15.6)

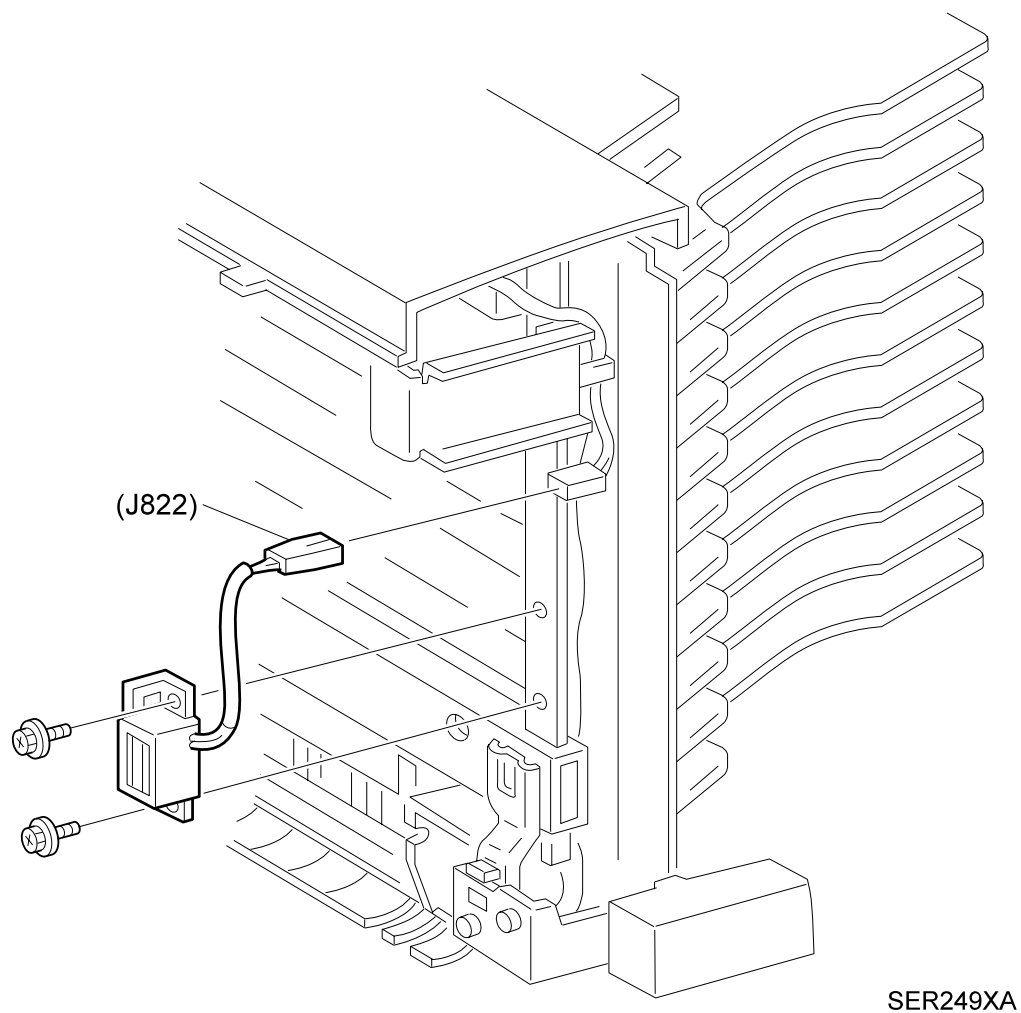
Removal

1. Remove the Sorter Left Cover Assembly (RRP 13.2).
2. Remove the Sorter Front Cover (RRP 13.3).
3. Remove the two screws securing the Lower Chute to the Mailbox frame.
4. Push the Lower Chute out through the front of the Mailbox.
5. Remove the screw securing the Vertical Sensor PWB to the Lower Chute and remove the PWB.
6. Remove the Lower Chute.

Replacement

1. Reinstall the Vertical Sensor PWB to the Lower Chute, and use one screw to secure the PWB.
2. Reinstall the Lower Chute by sliding it into position from the front of the Mailbox.
3. Reroute the Vertical Sensor wire harness through the slot in the side of the Mailbox frame.
4. Align the two positioning holes in the end of the Chute with the two positioning tabs on the frame.
5. Make sure the Chute is not caught on nor interferes with the IN Gate.
6. Use two screws to secure the Chute to the frame.
7. Reinstall the Sorter Front Cover (RRP 13.3).
8. Reinstall the Sorter Left Cover Assembly (RRP 13.2).

RRP 13.22 Sorter Interlock Switch (PL15.6)



SER249XA

RRP 13.22 Sorter Interlock Switch (PL15.6)

Removal

1. Remove the Sorter Front Cover (RRP 13.3).
2. Open the Left Cover.
3. Disconnect P/J 822.
4. Remove the two screws securing the Sorter Interlock Switch to the Mailbox frame, and remove the Switch.

Replacement

1. Position the Sorter Interlock Switch as shown in the figure, and reinstall the Switch onto the Mailbox frame.
2. Use two screws to secure the Switch to the frame.
3. Reconnect P/J 822.
4. Reinstall the Sorter Front Cover (RRP 13.3).

Section 6 - Locating P/J Connectors

Use the table and map in this section to locate specific P/J connectors within the Mailbox.

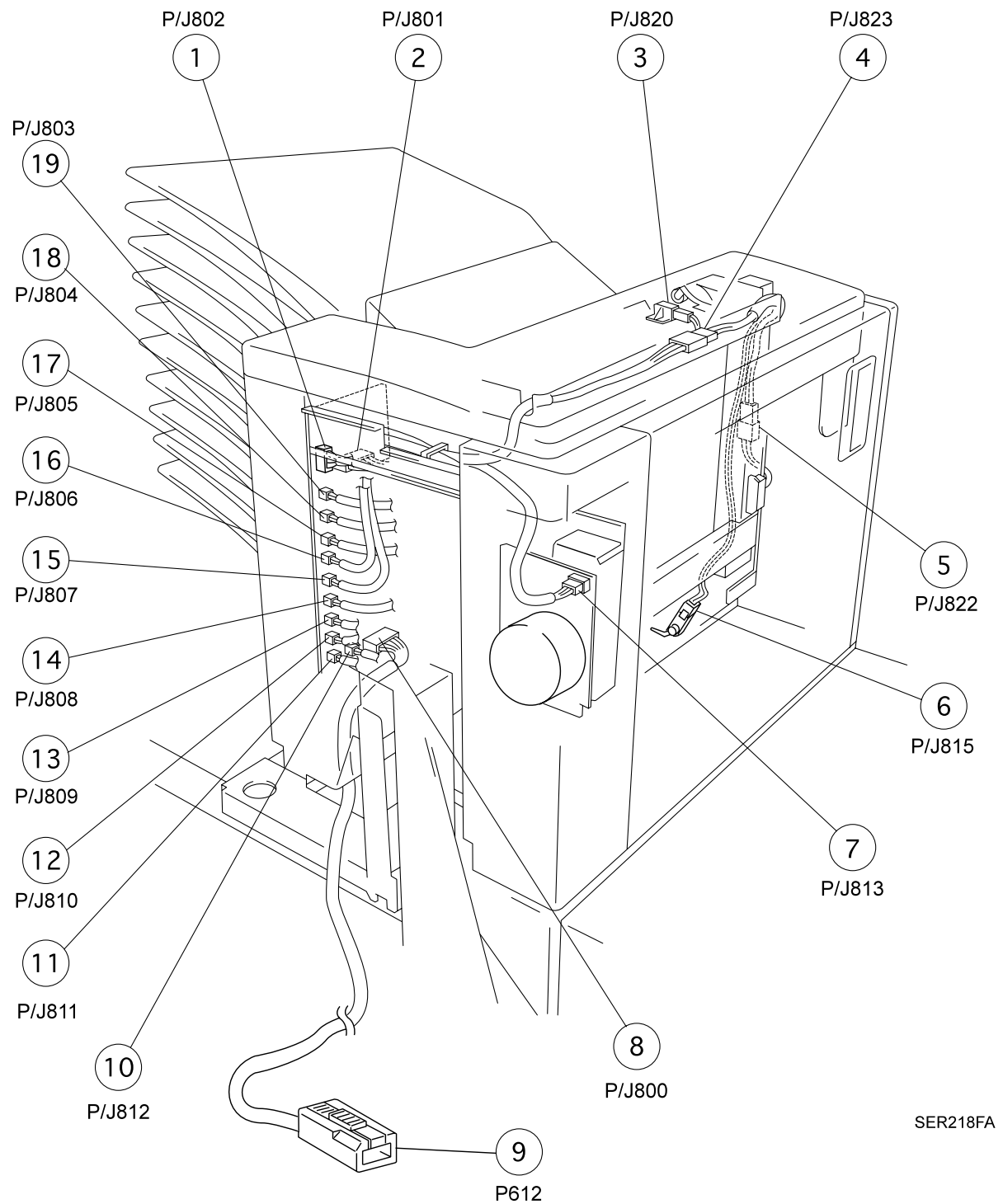
To find the location of a P/J:

1. Locate the P/J connector number in the first column of the table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. Go to the map (M1) number and locate item number (5).

P/J Location Table

P/J	Map & Number	Connected to...	Other end connected to...
612	M1-9	P/J405 MCU PWB	P/J800 Sorter Control PWB
800	M1-8	Sorter Control PWB	P405 MCU PWB
801	M1-2	Sorter Control PWB	P/J815 Entrance Sensor P/J818 Vertical Jam Sensor P/J820 Bin 1 Jam Sensor P/J822 Interlock Switch
802	M1-1	Sorter Control PWB	P/J813 Sorter Drive Motor
803	M1-19	Sorter Control PWB	BIN 2 Gate Solenoid
804	M1-18	Sorter Control PWB	BIN 3 Gate Solenoid
805	M1-17	Sorter Control PWB	BIN 4 Gate Solenoid
806	M1-16	Sorter Control PWB	BIN 5 Gate Solenoid
807	M1-15	Sorter Control PWB	BIN 6 Gate Solenoid
808	M1-14	Sorter Control PWB	BIN 7 Gate Solenoid
809	M1-13	Sorter Control PWB	BIN 8 Gate Solenoid
810	M1-12	Sorter Control PWB	BIN 9 Gate Solenoid
811	M1-11	Sorter Control PWB	BIN 10 Gate Solenoid
812	M1-10	Sorter Control PWB	IN Gate Solenoid
813	M1-7	Sorter Drive Motor	P/J802 Sorter Control PWB
815	M1-6	Entrance Sensor	P/J801 Sorter Control PWB
820	M1-3	Bin 1 Jam Sensor	P/J801 Sorter Control PWB
822	M1-5	Interlock Switch	P/J801 Sorter Control PWB
823	M1-4	P/J818 Vertical Sensor PWB	P/J801 Sorter Control PWB

P/J Location Map 1



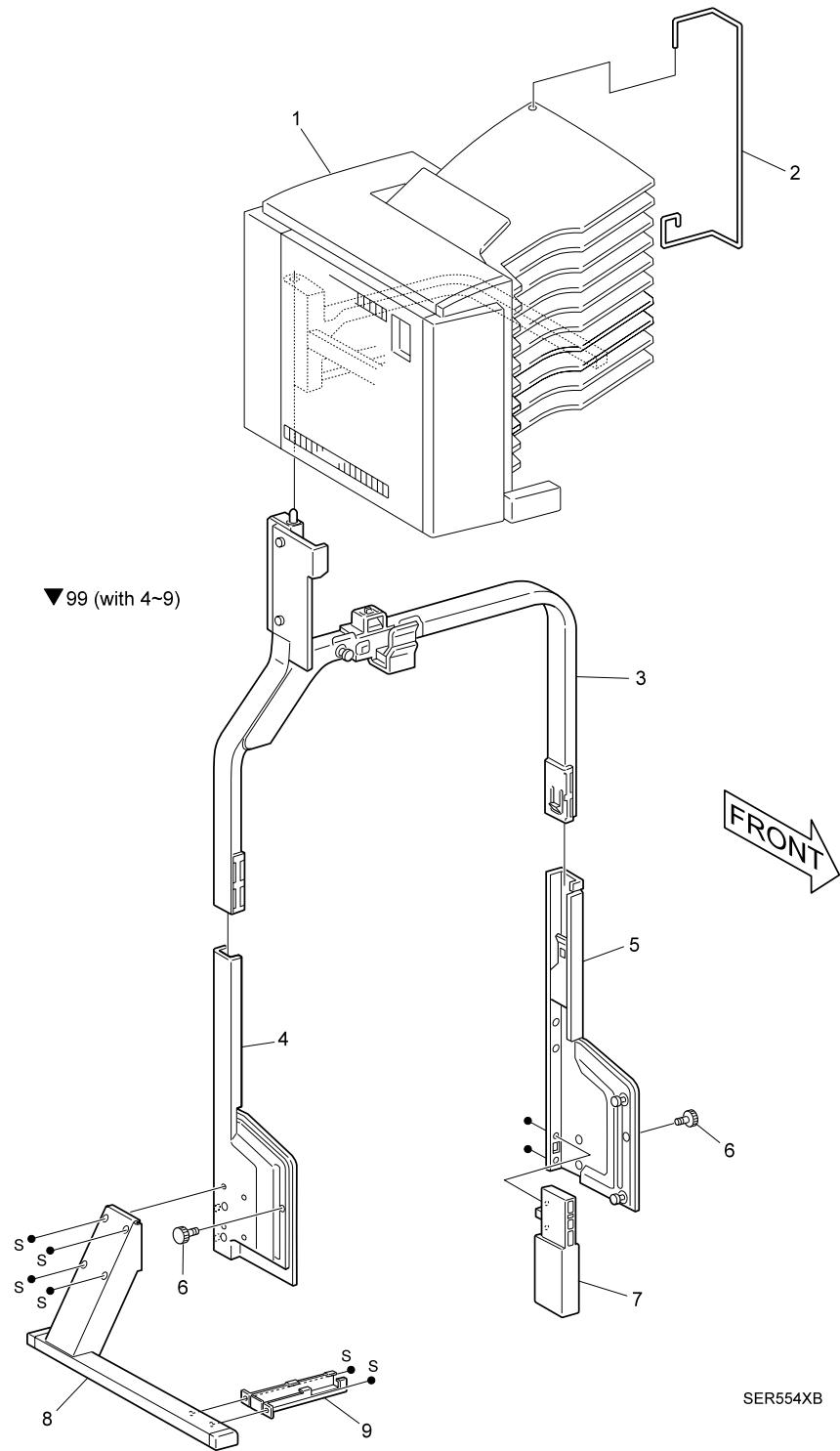
SER218FA

Section 7 - PL15 Mailbox Parts List

Using the Parts List

1. The numbers shown in each illustration correspond to the parts list number for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL3.12 means the part is item 12 of parts list 3.
3. The capital letters “C”, “E”, “KL”, and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle ▼ in an illustration indicates the item is part of an assembly.
5. The notation “**with X~Y**” following an part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.
6. The symbol \$ following a part name indicates the part is an FX Recommended Part and is constantly stocked and readily available. Other parts may be stocked according to the needs of each individual OEM client.
7. An asterisk * following a part name indicates the page contains a note about this part.
8. The notation “**J1<>J2 and P2**” is attached to a wire harness. It indicates that connector jack 1 is attached to one end of the wire harness and connector jack 2 is attached to the other end that is plugged into plug 2.
9. An RRP number appears at the end of a part line if the technical manual contains a removal and replacement procedure for that part or module.

PL15.1 Mailbox / Sorter and Rack



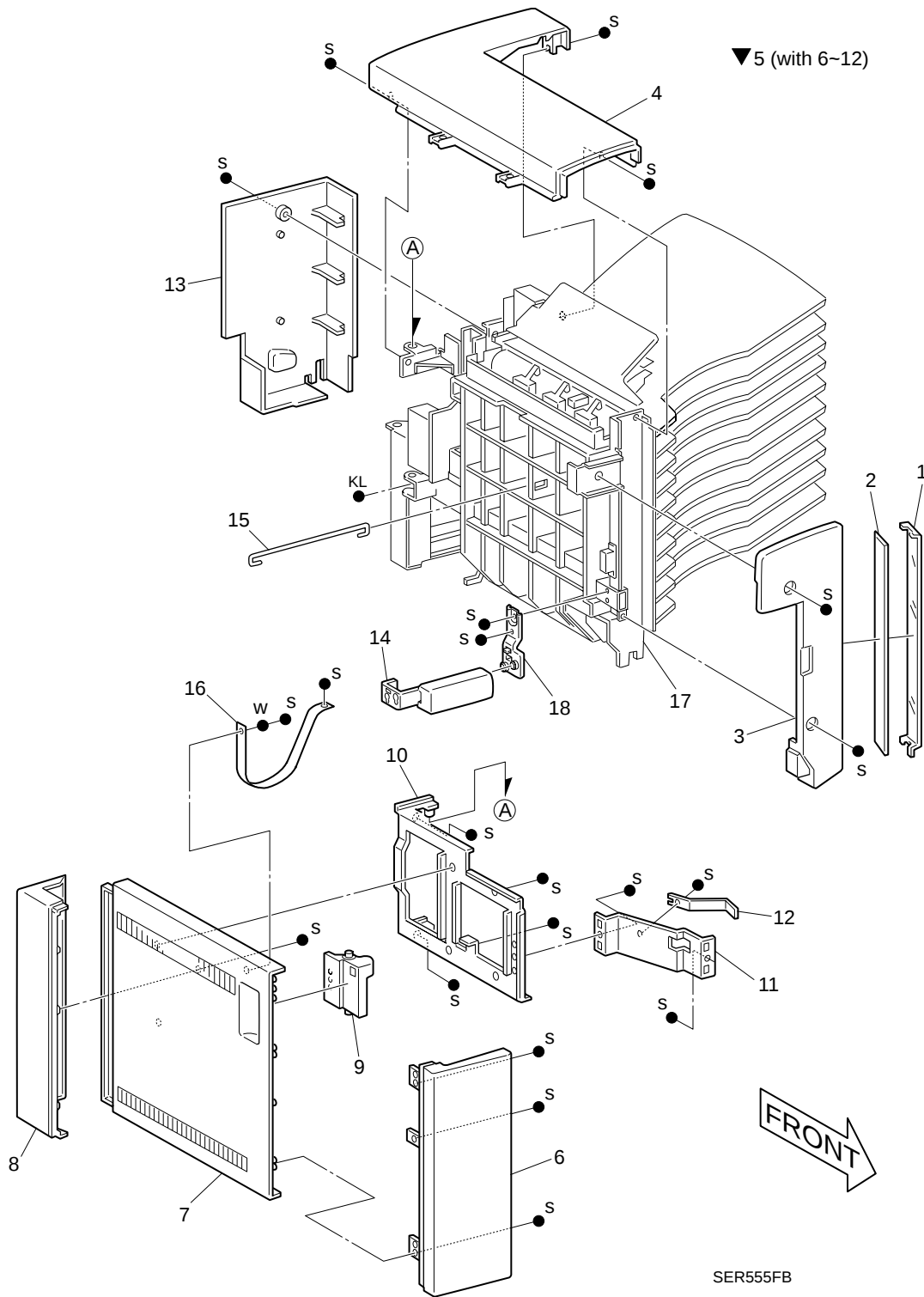
SER554XB

SER554XB

PL15.1 Mailbox / Sorter and Rack

1. MAILBOX / SORTER UNIT (with PL15.2 ~ PL15.7).....	N/A
2. STOPPER	N/A
3. RACK	N/A
4. SORTER LEFT BRACKET.....	N/A
5. SORTER RIGHT BRACKET	N/A
6. SCREW.....	P/N 865003K91881
7. STAND L	N/A
8. STAND L CONNECTION	N/A
9. STAND R.....	N/A
10. MBX CONSOLE BRACKET (with 4 ~ 9)	N/A

PL15.2 Sorter Cover and Frame

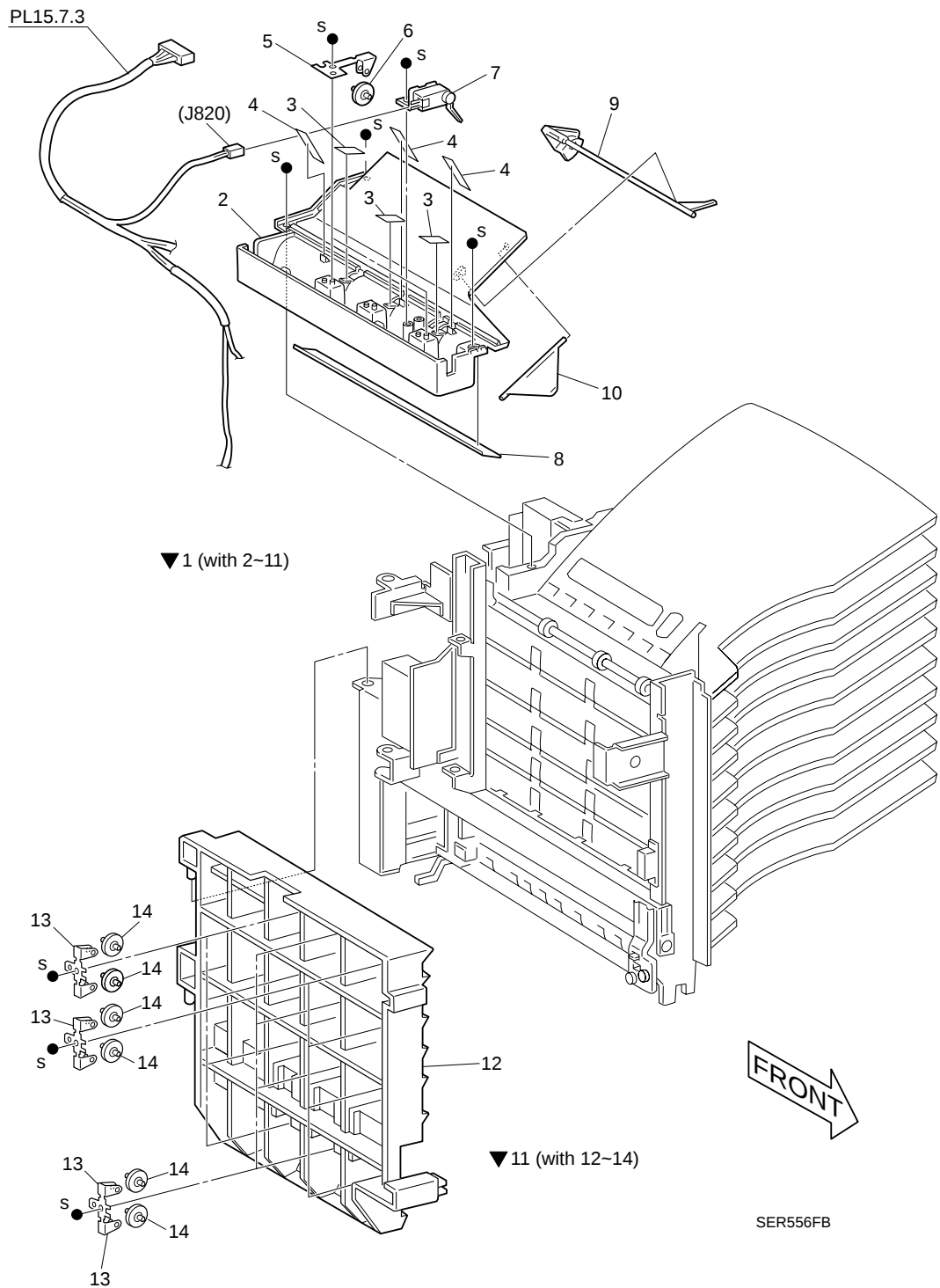


SER555FB

PL15.2 Sorter Cover and Frame

1. SORTER PANEL	N/A
2. SORTER LABEL	N/A
3. SORTER FRONT COVER.....	N/A
4. SORTER TOP COVER	N/A
5. SORTER LEFT COVER ASSEMBLY (with 6 ~ 12).....	N/A
6. LEFT FRONT COVER.....	N/A
7. LEFT COVER.....	N/A
8. LEFT REAR COVER	N/A
9. LEFT COVER HANDLE	N/A
10. SORTER COVER FRAME	N/A
11. SORTER COVER SUPPORT.....	N/A
12. COVER PLATE SPRING.....	N/A
13. SORTER REAR COVER	N/A
14. HANDLE	N/A
15. LEFT COVER HOOK	N/A
16. LEFT COVER STRAP	N/A
17. SORTER FRAME ASSEMBLY.....	N/A
18. HANDLE SUPPORT.....	N/A

PL15.3 Actuator Cover and Left Chute

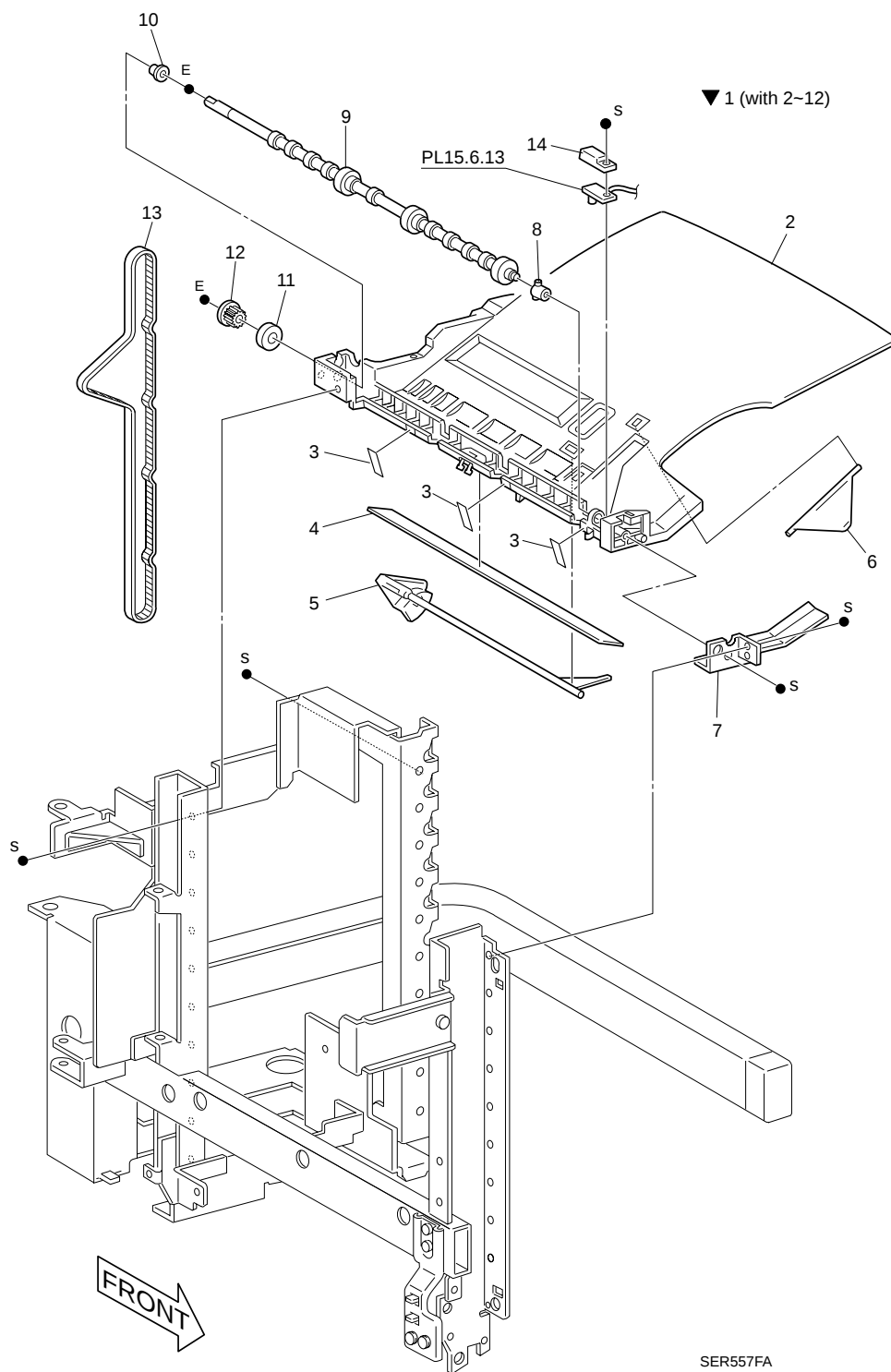


SER556FB

PL15.3 Actuator Cover and Left Chute

1. ACT COVER ASSEMBLY (with 2 ~ 11)	N/A
2. ACT COVER.....	N/A
3. PAPER GUIDE UPPER.....	N/A
4. PAPER GUIDE LOWER.....	N/A
5. PINCH ROLLER SPRING	N/A
6. PINCH ROLLER	N/A
7. BIN 1 JAM SENSOR	N/A
8. ELIMINATOR	N/A
9. FULL STACK ACTUATOR 1	N/A
10. FULL STACK ACTUATOR 2	N/A
11. SORTER LEFT CHUTE ASSEMBLY (with 12 ~ 14).....	N/A
12. SORTER LEFT CHUTE.....	N/A
13. LEFT CHUTE PINCH ROLLER SPRING	N/A
14. LEFT CHUTE PINCH ROLLER	N/A

PL15.4 Bin Tray 1 Assembly

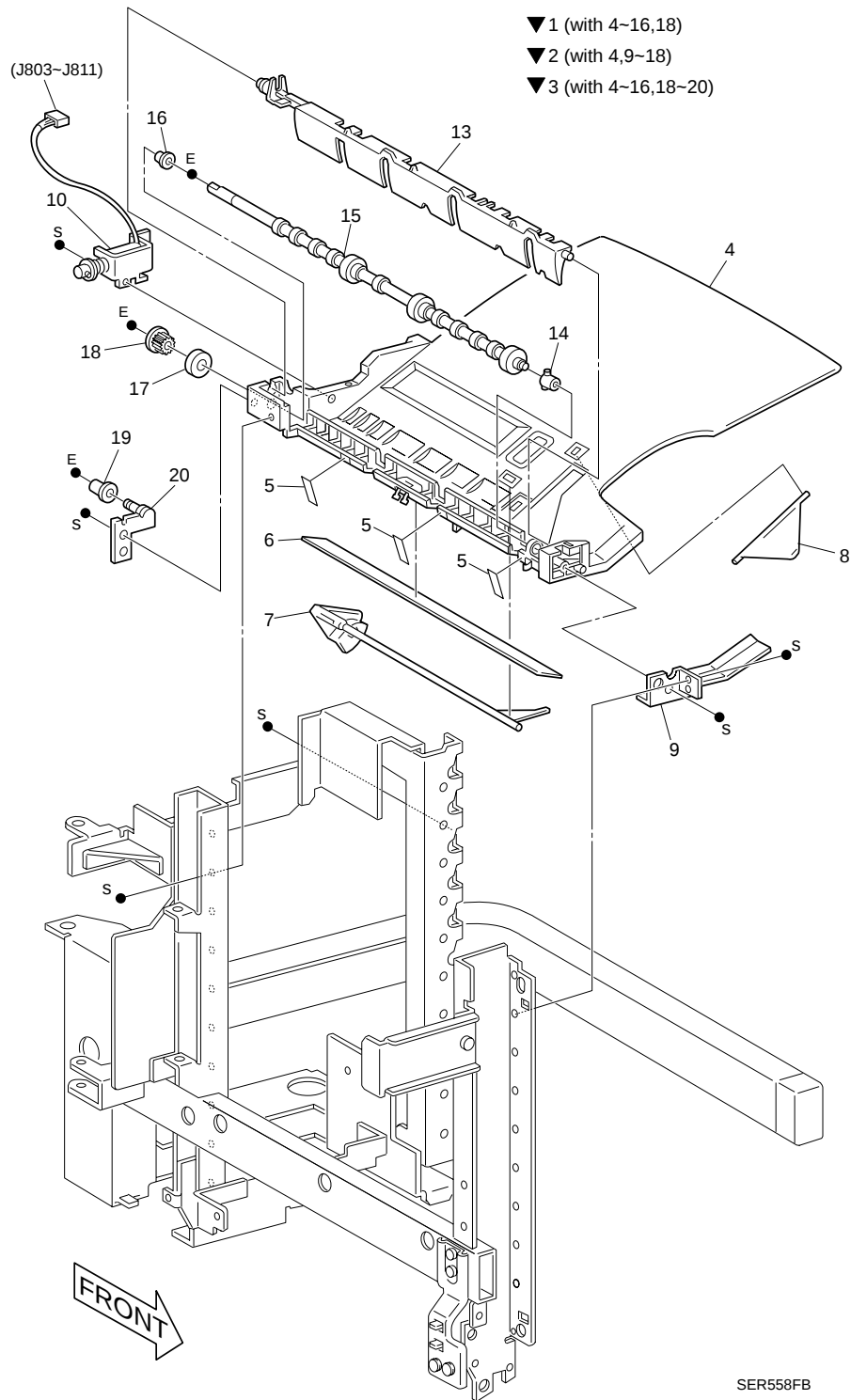


SER557FA

PL15.4 Bin Tray 1 Assembly

1. BIN TRAY 1 ASSEMBLY (with 2 ~ 12)	N/A
2. BIN TRAY	N/A
3. PAPER GUIDE LOWER.....	N/A
4. ELIMINATOR	N/A
5. FULL STACK ACTUATOR 1	N/A
6. FULL STACK ACTUATOR 2	N/A
7. BIN TRAY SUPPORT	N/A
8. SORTER BEARING FRONT	N/A
9. SORTER EXIT ROLLER.....	N/A
10. SORTER BEARING REAR	N/A
11. SORTER COLLAR	N/A
12. SORTER PULLEY	N/A
13. SORTER DRIVE BELT.....	N/A
14. LED COVER	N/A

PL15.5 Bin Tray Assembly

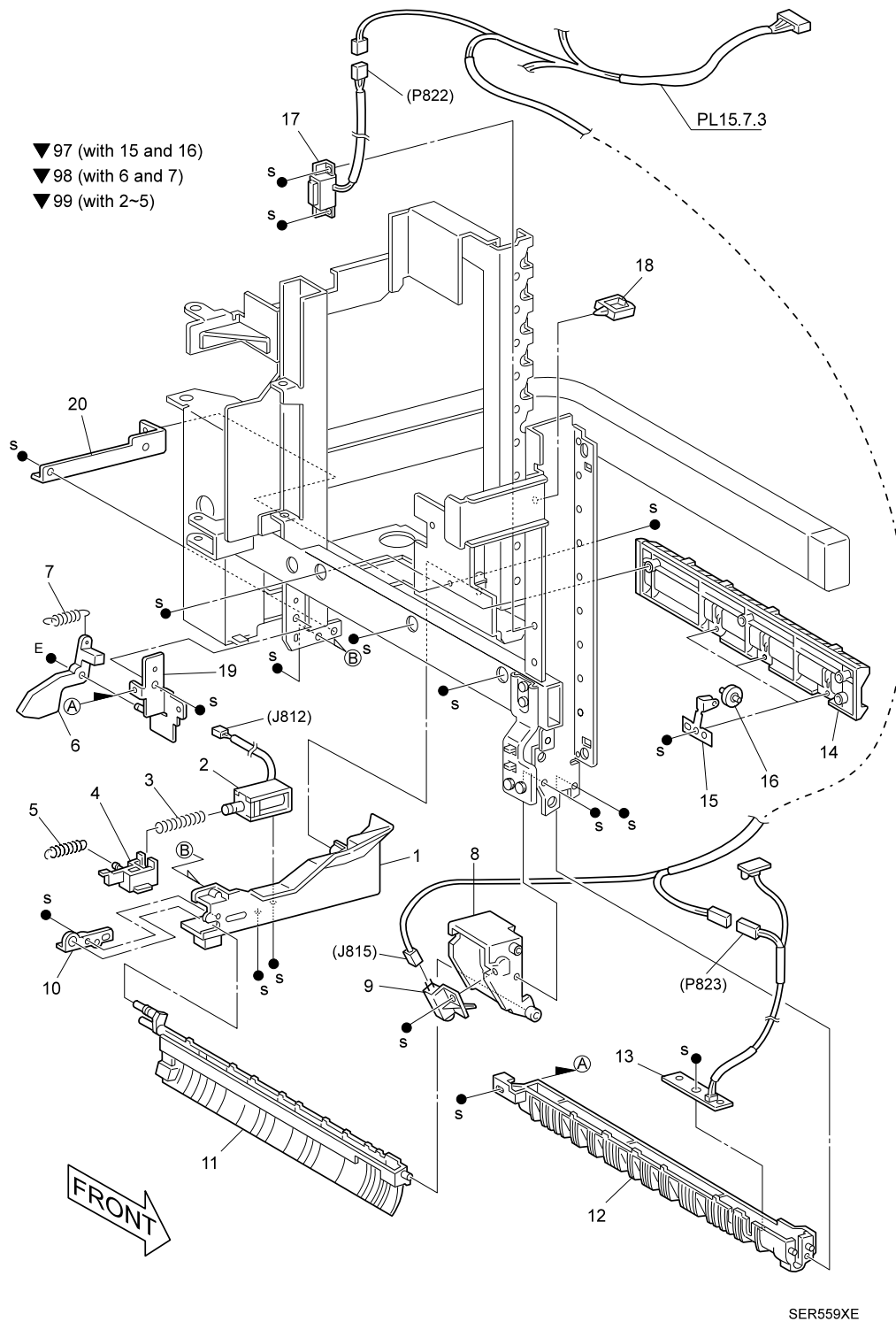


SER558FB

PL15.5 Bin Tray Assembly

1. BIN TRAY EVEN ASSEMBLY (with 4 ~ 16 and 18).....	N/A
2. BIN TRAY 10 ASSEMBLY (with 4 and 9 ~ 18)	N/A
3. BIN TRAY ODD ASSEMBLY (with 4 ~ 16 and 18 ~ 20).....	N/A
4. BIN TRAY	N/A
5. PAPER GUIDE LOWER	N/A
6. ELIMINATOR	N/A
7. FULL STACK ACTUATOR 1	N/A
8. FULL STACK ACTUATOR 2	N/A
9. BIN TRAY SUPPORT	N/A
10. GATE 2 ~ 10 SOLENOID (J803 TO J811)	N/A
11. N/A	
12. N/A	
13. SORTER GATE	N/A
14. SORTER BEARING FRONT	N/A
15. SORTER EXIT ROLLER.....	N/A
16. SORTER BEARING REAR.....	N/A
17. SORTER COLLAR	N/A
18. SORTER PULLEY	N/A
19. SORTER TENSION ROLLER.....	N/A
20. SORTER TENSION ROLLER BRACKET	N/A

PL15.6 Solenoid and Sensor

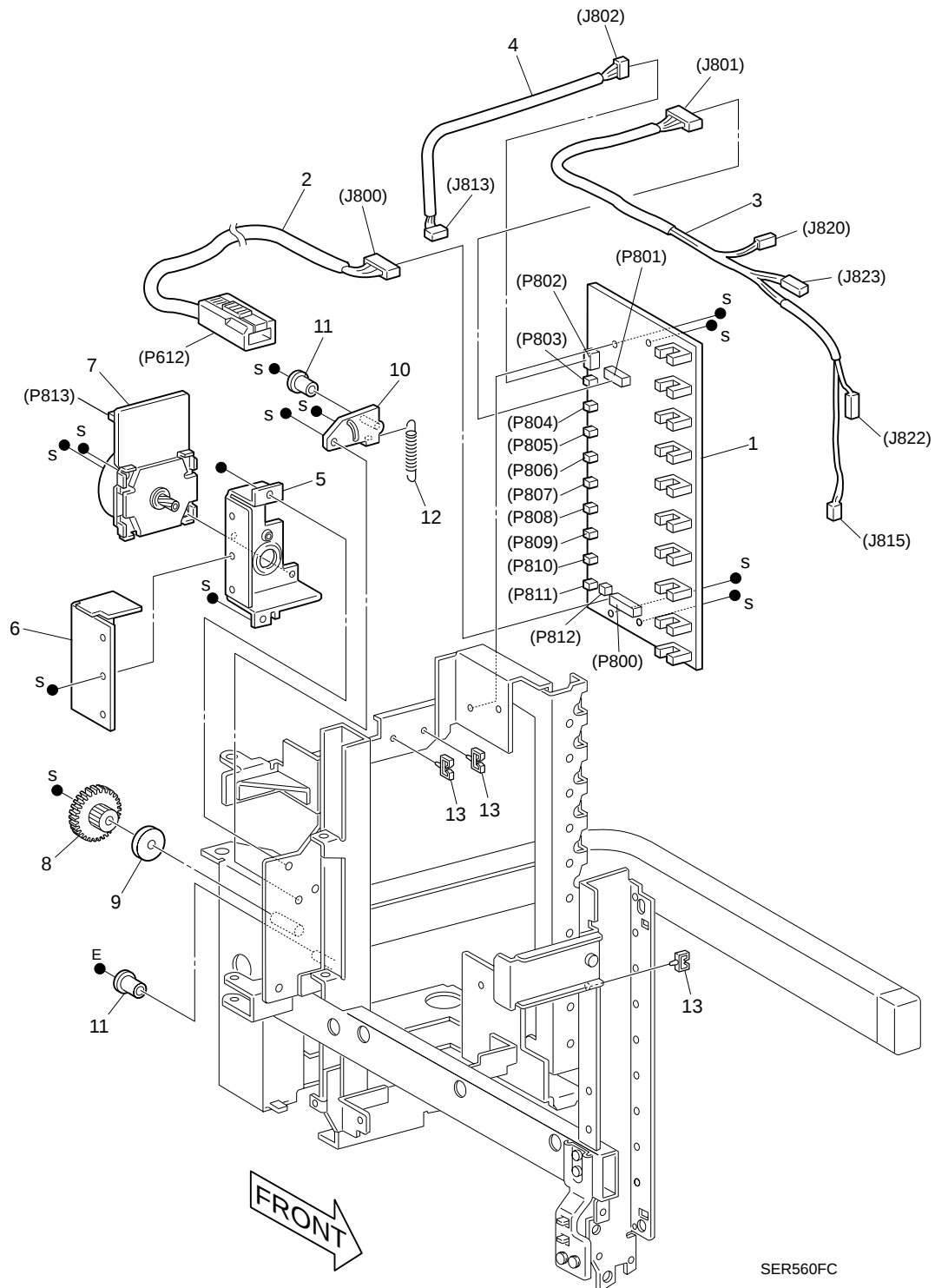


SER559XE

PL15.6 Solenoid and Sensor

1. REAR LOWER COVER	N/A
2. SORTER GATE IN SOLENOID (J812).....	N/A
3. GATE IN SOLENOID SPRING.....	N/A
4. GATE IN LINK	N/A
5. GATE IN SPRING.....	N/A
6. GATE IN ARM.....	N/A
7. GATE IN ARM SPRING.....	N/A
8. FRONT LEFT CHUTE.....	N/A
9. SORTER ENTRANCE SENSOR.....	N/A
10. IN GATE SUPPORT.....	N/A
11. IN GATE	N/A
12. LOWER CHUTE	N/A
13. VERTICAL LED / SENSOR.....	N/A
14. UPPER CHUTE.....	N/A
15. UPPER CHUTE PINCH ROLLER SPRING	N/A
16. UPPER CHUTE PINCH ROLLER	N/A
17. SORTER INTERLOCK SWITCH	N/A
18. HARNESS CLAMP	N/A
19. GATE IN ARM BRACKET	N/A
20. TIE PLATE	N/A
21. KIT UPPER CHUTE PINCH ROLLER (with 15 and 16)	N/A
22. KIT GATE IN ARM (with 6 and 7).....	N/A
23. KIT GATE IN SOLENOID (with 2 ~ 5)	N/A

PL15.7 Sorter Control PWB and Sorter Drive Motor

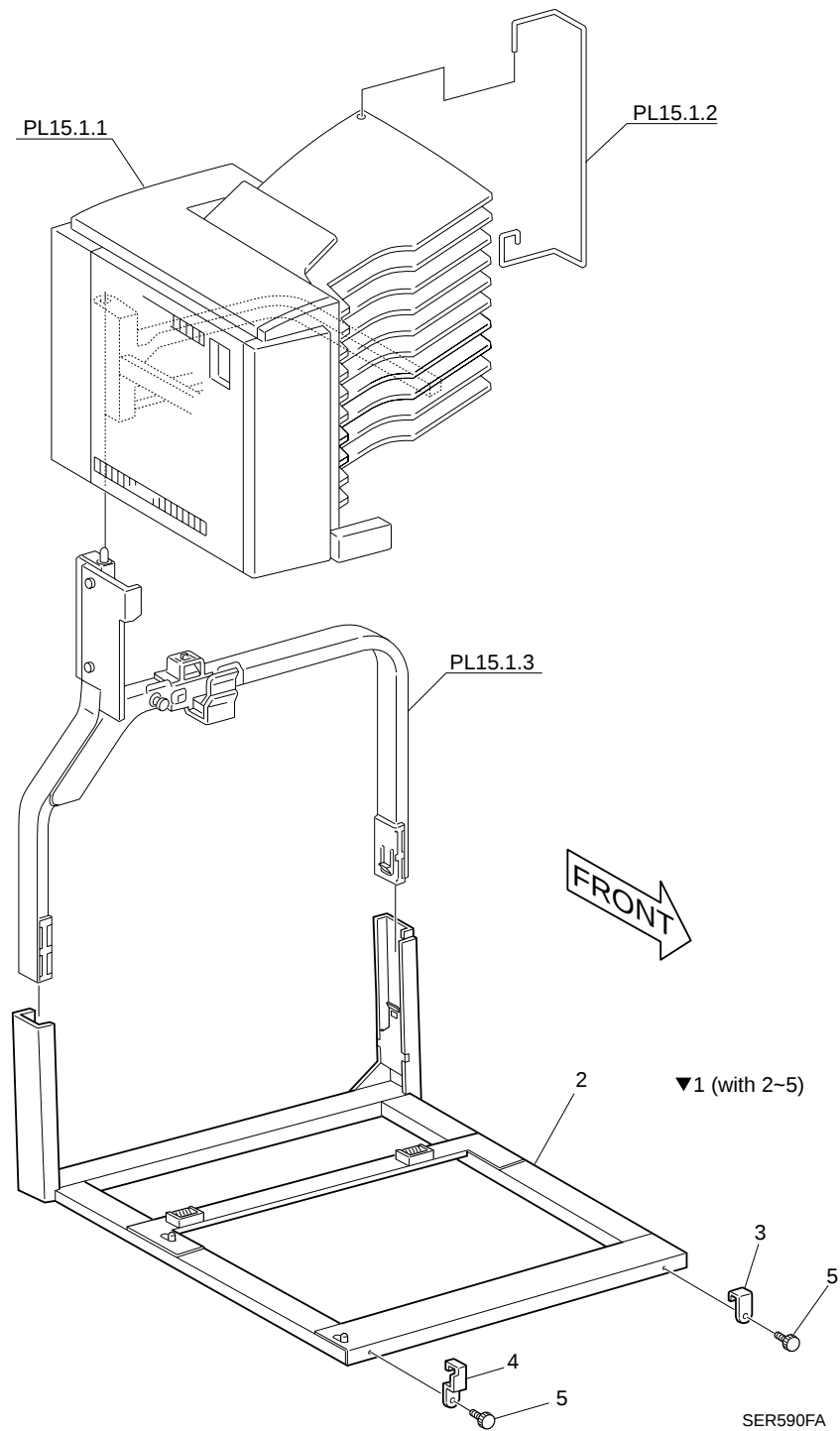


SER560FC

PL15.7 Sorter Control PWB and Sorter Drive Motor

1. SORTER CONTROL PWB
2. BASE ENGINE CONNECTOR HARNESS (J800 <> P612)
3. SENSOR HARNESS (J801 <> J815/J820/J822/J823))
4. SORTER DRIVE MOTOR HARNESS (J802 <> J813)
5. SORTER DRIVE BRACKET
6. SORTER DRIVE COVER
7. SORTER DRIVE MOTOR
8. SORTER DRIVE GEAR
9. SORTER DRIVE COLLAR
10. SORTER DRIVE TENSION BRACKET
11. SORTER DRIVE TENSION ROLLER
12. SORTER DRIVE TENSION SPRING
13. HARNESS CLAMP

PL15.8 Desktop Frame



SER590FA

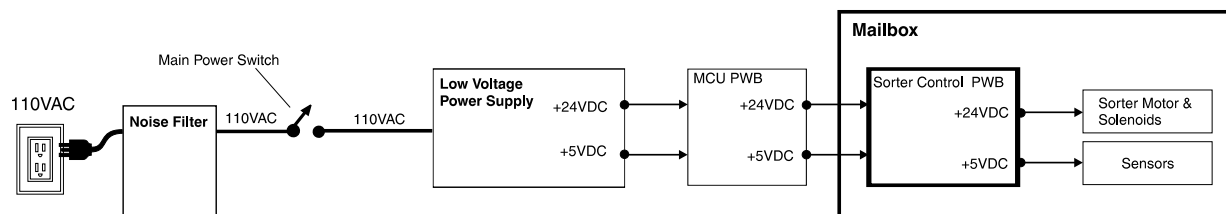
PL15.8 Desktop Frame

1. KIT - FRAME, MBS-XC (with 2 ~ 5)
2. FRAME ASSEMBLY
3. BRACKET-DOCKING, RIGHT 2 (Mailbox unique)
4. BRACKET-DOCKING, LEFT (common with PL12.1.11)
5. SCREW

1- Mailbox Power

The base engine MCU PWB provides the +5VDC and +24VDC that the Mailbox requires for operation.

The printer AC power cord plugs into a grounded AC wall outlet. The cord carries AC line voltage to the Noise Filter PWB. The Noise Filter smooths the AC voltage and sends it to the Main Power Switch. Switching on the Main Power Switch applies AC voltage to the Low Voltage Power Supply (LVPS) PWB. The LVPS converts the 110VAC to regulated +5VDC and +24VDC voltages. The LVPS sends these voltages to the MCU PWB. The MCU sends these two DC voltages to the **Sorter Control PWB**. The Sorter Control PWB uses these voltages to run internal logic, sensors, solenoids, and the motor within the Mailbox.

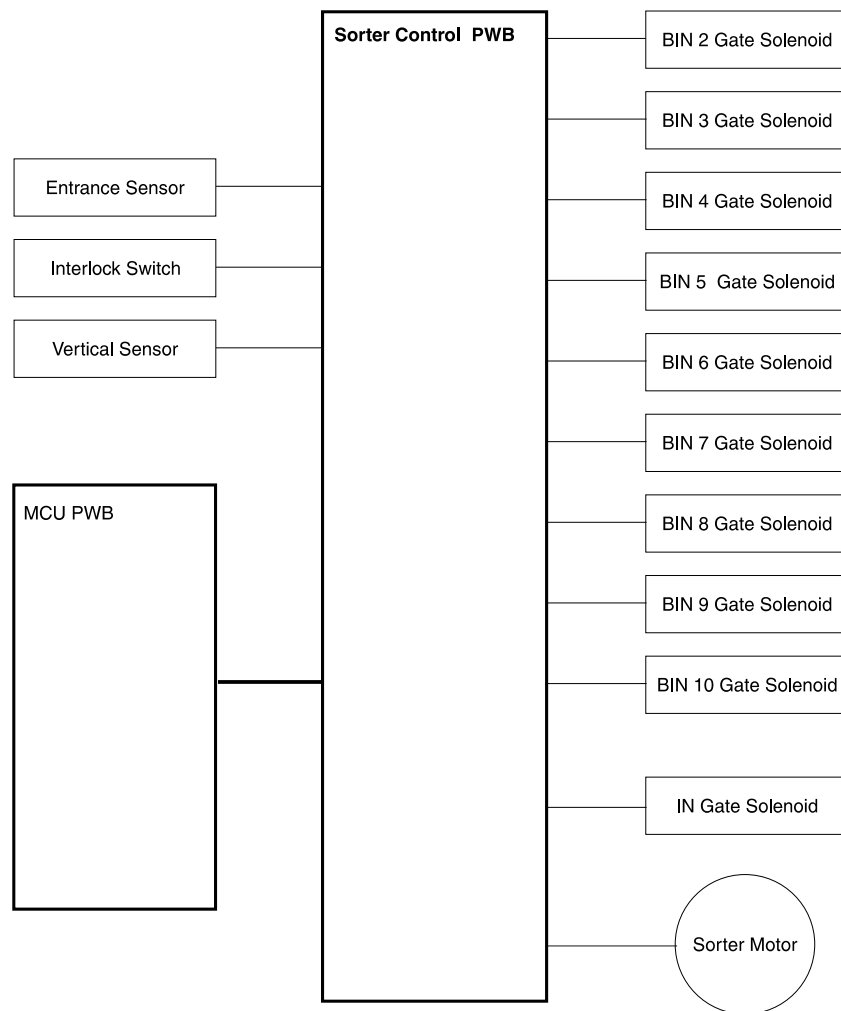


SR1465X

2- Mailbox Control

Mailbox Control is a broad term that is used to describe the printer resources that monitor and control the actions and operations of the printer and the Mailbox; from bin output to error detection.

The center of Mailbox control is the Sorter Control PWB. The MCU PWB provides the logic and information processing that is necessary for the printer to function, and the Sorter Control PWB provides the logic and information processing that is necessary for the Mailbox to function. Every electrical component within the Mailbox is connected to the Sorter Control PWB. Sensors in the Mailbox send paper travel status information to the Sorter Control PWB. The Sorter Control PWB processes that information and shares it with the MCU PWB. Acting on the results of the processing, the Sorter Control PWB sends commands to the various Mailbox components; switching on the motor or switching off a bin solenoid.



SR1483X

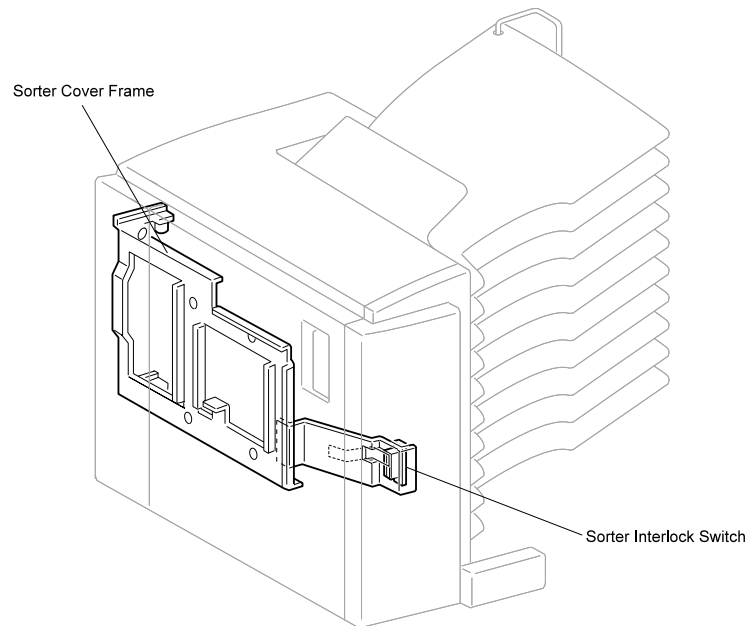
Mailbox Control Components

1. Sorter Control PWB

The Sorter Control PWB controls all Mailbox functions, executes commands sent from the MCU PWB, and sends information back to the MCU PWB. All Mailbox components are connected directly to the Sorter Control PWB.

2. Sorter Interlock Switch

Monitors the Left Cover position. When the Cover is open, the Sorter Control PWB cuts power to the Mailbox components.



SR1492X

3. Full Stack Sensor

There are ten Full Stack Sensor within the Mailbox. Each Sensor monitors the paper level of the associated bin.

4. Sorter Entrance Sensor

Monitors paper entering the Mailbox from the printer.

5. Sorter Drive Motor

A 24VDC motor. Provides mechanical drive for the Mailbox.

6. Gate Solenoid

There are nine Gate Solenoids within the Mailbox. Each Solenoid controls the paper path Gate of the associated bin.

7. Vertical LED and Sensor

Monitors paper travel into Bins 2 through 10.

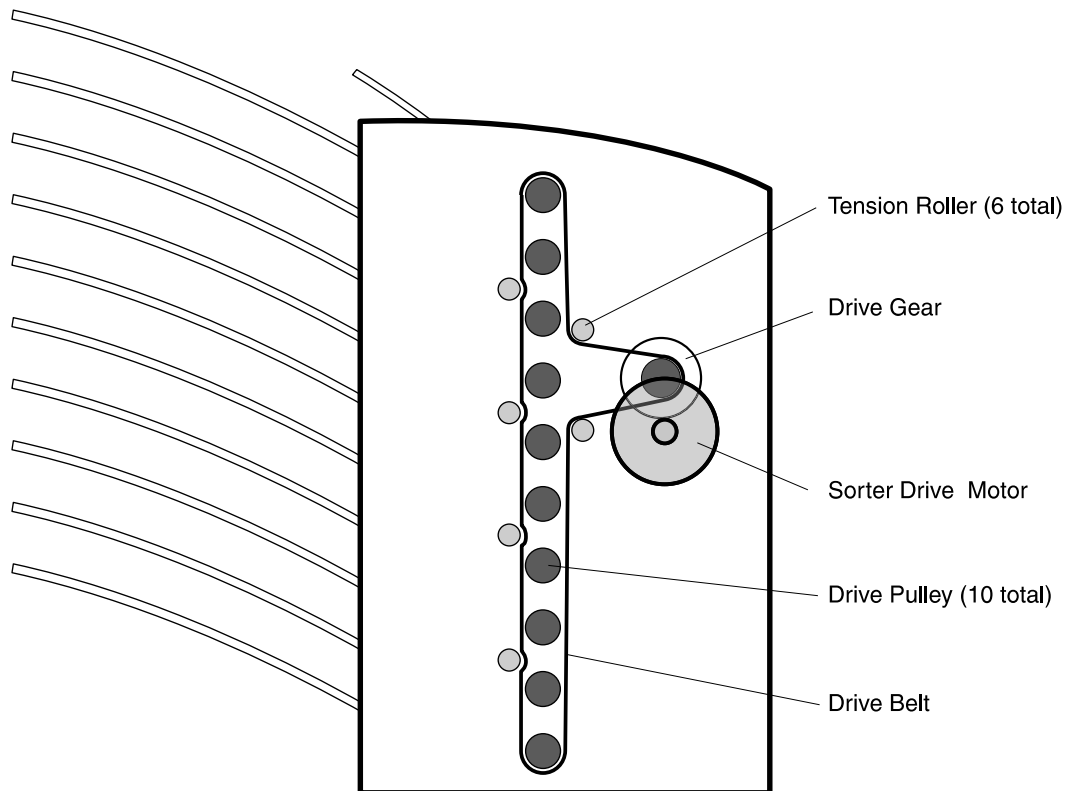
8. Bin 1 Jam Sensor

Monitors paper travel to Bin 1.

3- Mechanical Drive

Mechanical Drive is a term that is used to describe both the rotation of the Sorter Drive Motor and the action of the gear, belt, pulleys, and rollers that are used to transmit motor rotation to the ten Sorter Rolls within the Mailbox. The purpose of Mechanical Drive within the Mailbox is to provide the mechanical energy needed to drive a sheet from the printer paper exit and into a Mailbox bin.

The Sorter Control PWB controls the Sorter Motor. The Motor rotates the Drive Gear. The Drive Belt wraps around the Drive Gear and the ten Drive Pulleys. Six Tension Rollers along the path press the Drive Belt against the Drive Pulleys. When the Sorter Control PWB switches on the Sorter Motor, the Motor rotates the Drive Gear, the Drive Gear drives the Belt which in turn rotates the ten Drive Pulleys. The ten Drive Pulleys rotate the ten Sorter Exit Rolls.



SR1466X

Mailbox Mechanical Drive Components

The Mechanical Drive for the Mailbox is made up of one motor, a drive belt, and a number of pulleys.

1. Sorter Drive Motor

Provides the mechanical drive for the Mailbox.

2. Drive Gear

A two part gear. One side of the gear rides on the Motor gear. The other side of the gear drives the Sorter Drive Belt.

3. Sorter Drive Belt

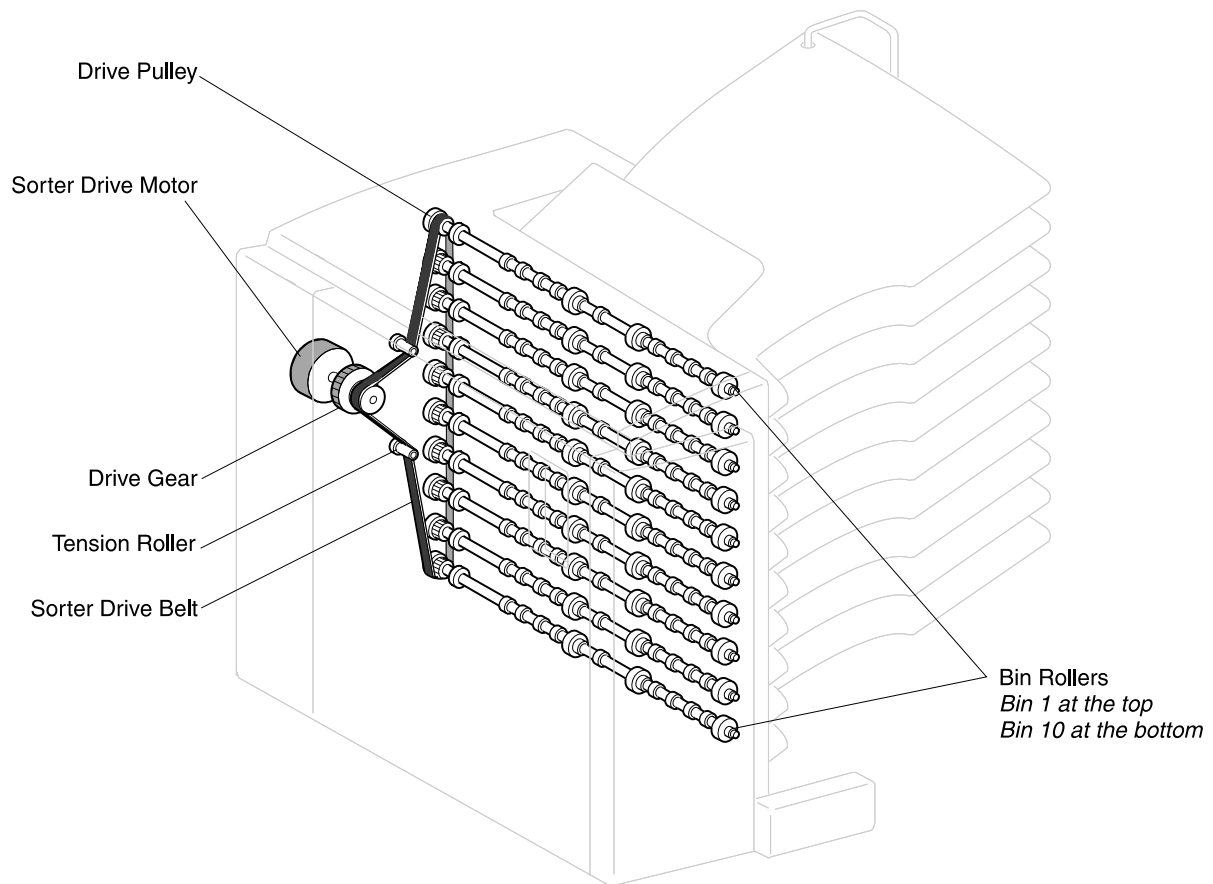
Transmits Sorter Motor drive to the ten Drive Pulleys.

4. Drive Pulleys

Ten pulleys

5. Tension Rollers

Six rollers that press the Drive Belt against the Drive Pulleys.



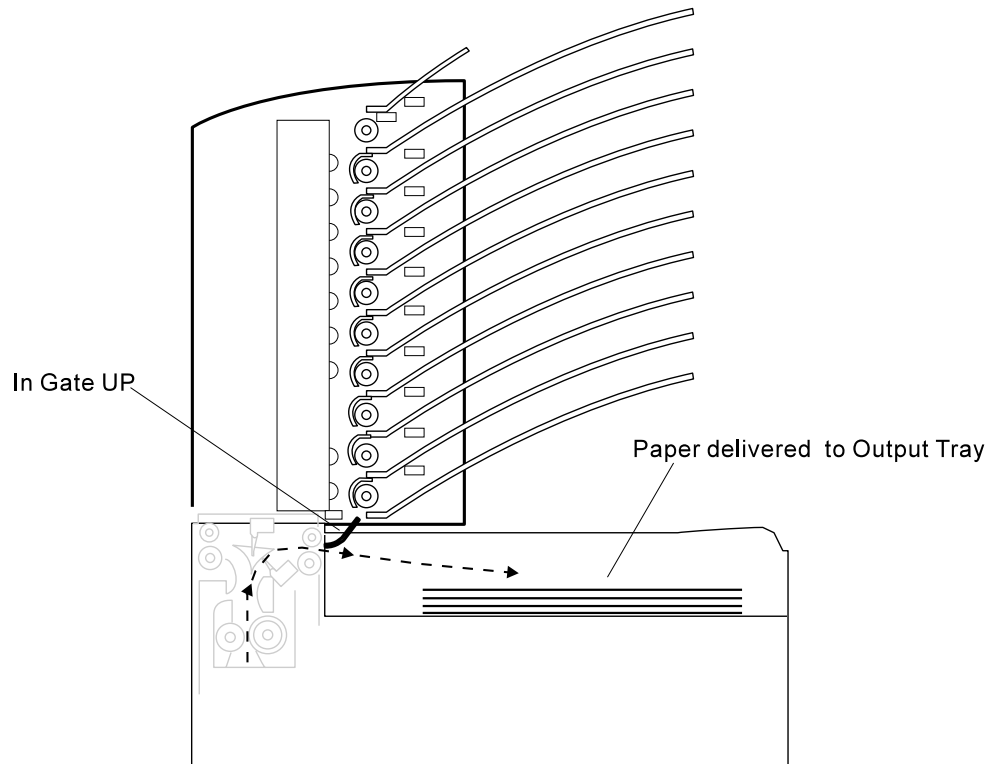
SR1471X

4 - The Mailbox Paper Path

The Mailbox Paper Path is the physical route that a sheet of paper takes from the printer exit area to a specific Mailbox bin. Rubber rollers drive the paper along the Paper Path.

Paper Path Option: Bypass the Mailbox and Feed Paper to the Output Tray

If the Controller signals the MCU PWB not use Mailbox mode, the MCU PWB does not actuate the In Gate Solenoid, the Solenoid does not drop the In Gate, and the paper path continues into the printer Face Down Output Tray.



SR1467X

Mailbox Paper Path Components

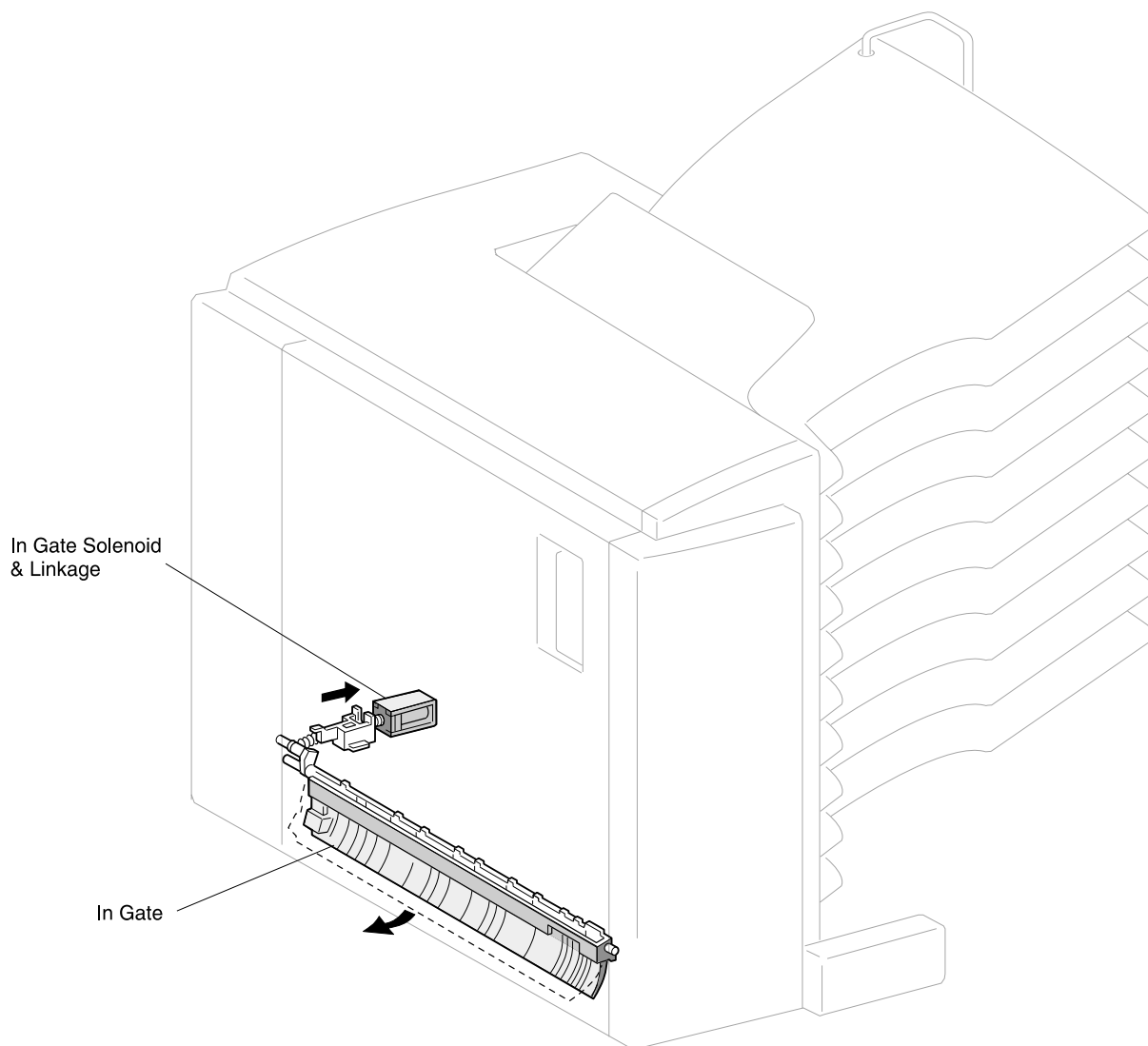
The Mailbox paper path when the Mailbox is bypassed is made up of two components.

1. In Gate Solenoid

Toggles the In Gate. In this case, the Gate Solenoid does not actuate.

2. In Gate

Switches the paper path from the Output Tray to the Mailbox. In this case, the In Gate remains up, and the paper is delivered to the printer Output Tray.

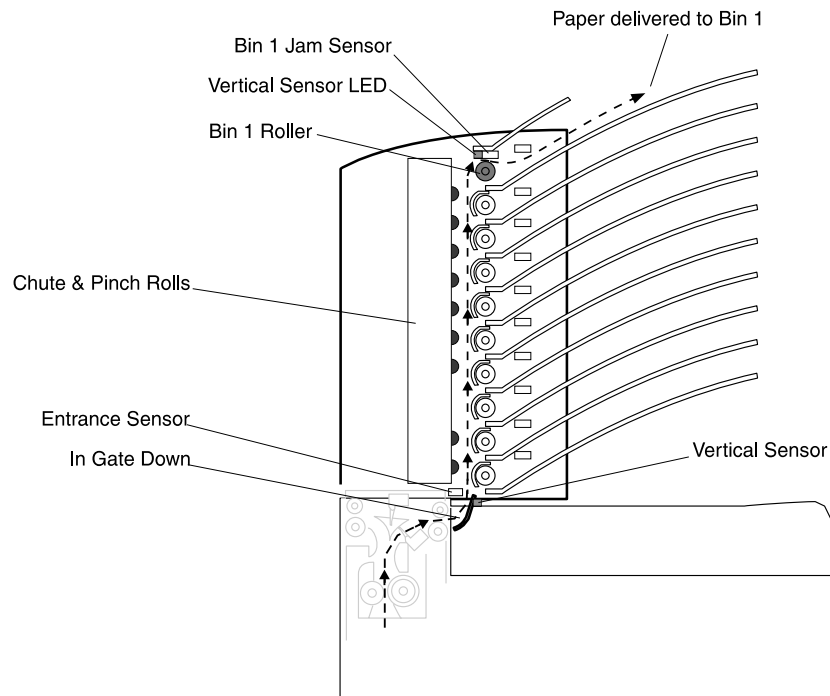


SR1472X

Paper Path Option: Feed Paper to Bin 1

If the Controller signals the MCU PWB to send the output to Bin 1, the Sorter Control PWB actuates the In Gate Solenoid, the Solenoid drops the In Gate, and the paper path switches to the Mailbox. The Entrance Sensor monitors paper arrival at the Mailbox entrance. The Exit and Pinch Rolls drive the sheet of paper to the top of the Mailbox. All of the Bin Gates remain closed, so the paper path moves past Bins 10 through 2. Bin 1, located at the top of the Mailbox, is unique. Bin 1 has neither a Bin Gate Solenoid nor a Bin Gate. There is a jam sensor in Bin 1 that detects when

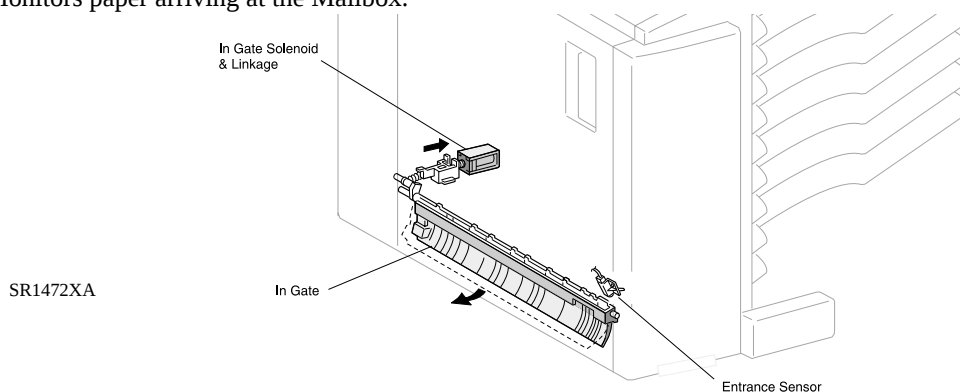
a sheet of paper arrives at Bin 1.



Mailbox Paper Path Components

The Mailbox paper path when the paper destination is Bin 1 is made up of a number of components.

1. In Gate Solenoid
Toggles the In Gate.
2. In Gate
Switches the paper path from the Output Tray to the Mailbox.
3. Entrance Sensor
Monitors paper arriving at the Mailbox.



4. Bin Rolls and Pinch Rolls
Drives the sheet of paper up the Mailbox paper path.
5. Bin Gates 10 through 2
When closed, the paper moves over the top of the Gates. When open, the paper is diverted into the Bin that the spe-

cific Gate controls. In this case, all of the Bin Gates are closed. Bin 1 does not have a Bin Gate.

6. Bin 1 Jam Sensor

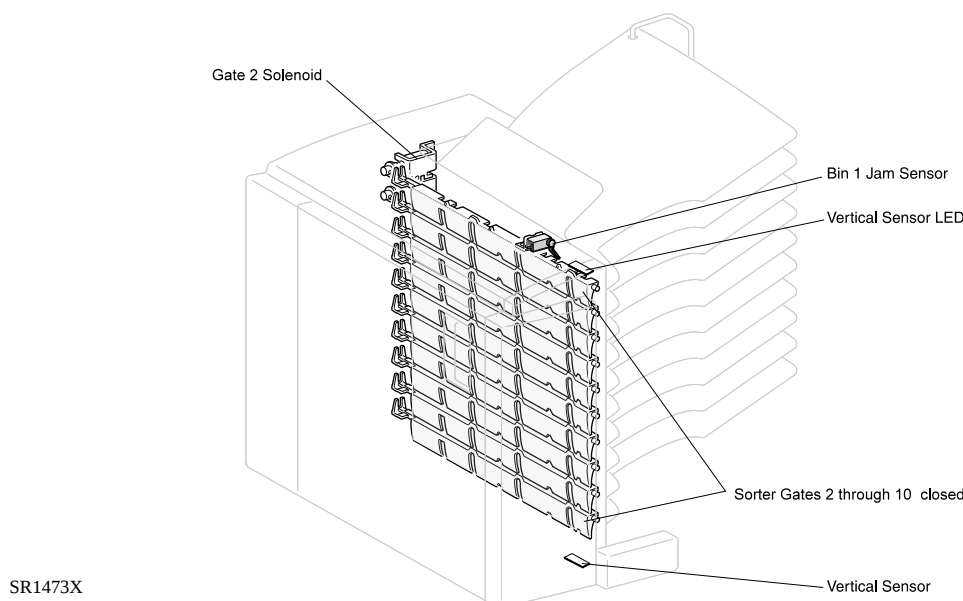
Monitors paper arriving at Bin 1.

7. Bin 1 Full Stack Sensor

Monitors the paper level in Bin 1.

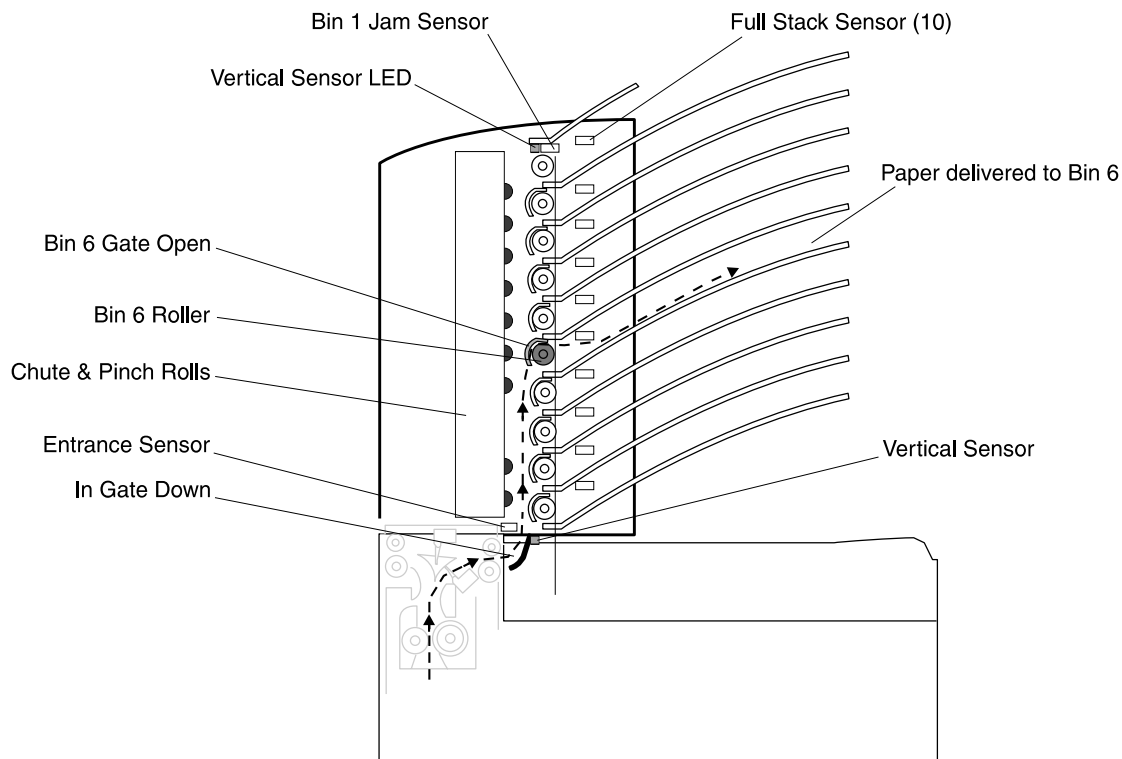
8. Vertical LED and Sensor

Monitors paper travel into Bins 2 through 10.



Paper Path Option: Feed Paper to Bins 2 through 10

If the Controller signals the MCU PWB to send the output to any Mailbox Bin between 2 through 10, the MCU PWB actuates the In Gate Solenoid, the Solenoid drops the In Gate and the paper path continues into the Mailbox. The Entrance Sensor, located at the input of the Mailbox paper path, monitors paper arrival into the Mailbox. The Exit Rolls and the Pinch Rolls drive the sheet of paper to the top of the Mailbox. Along the way, all of the Bin Gates remain closed except the Bin Gate of the designated Bin. (In the example show in the figure below, the output is destined for Bin 6.) The paper path moves past Bins 10 through 5. Bin 6 Gate Solenoid opens Bin 6 Gate and Bin 6 Roller drives the paper into Bin 6. The Vertical Sensor monitors paper travel into Bins 2 through 10. An LED located at the top of the Bin Gates shines light down through cutouts in each Gate and onto the Vertical Sensor that is located at the bottom of the Bin Gates. When a sheet of paper enters any Bin, 2 through 10, the sheet breaks the light beam and the Sensor signals the Sorter Control PWB that a sheet of paper has entered a Bin. All Bins have a Full Stack Sensor. The Full Stack Sensors monitors the paper level in each Bin and signals the Sorter Control PWB when the Bin is full.

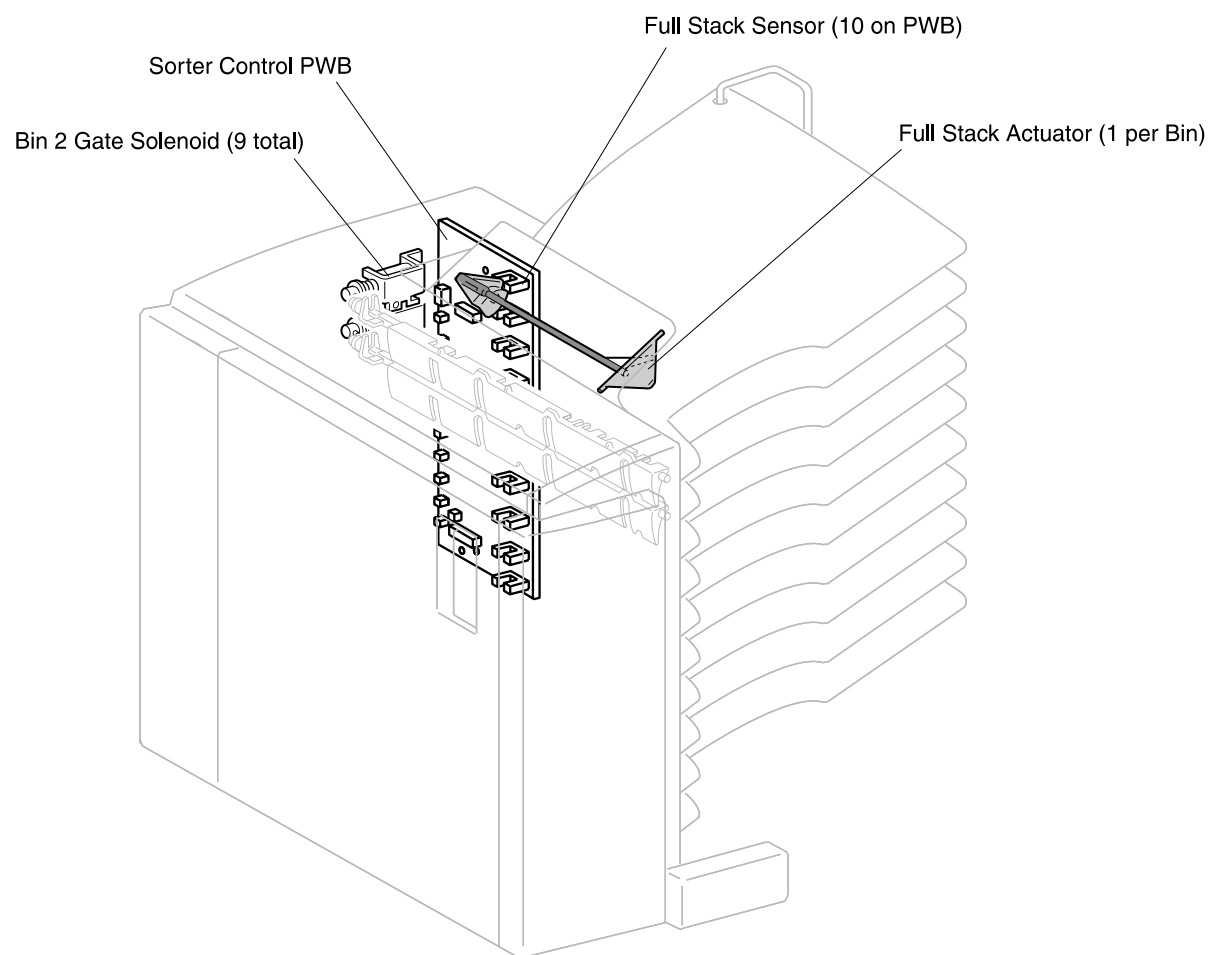


SR1469X

Mailbox Paper Path Components

The Mailbox paper path when the paper destination is Bin 2 through 10 is made up of a number of components.

1. In Gate Solenoid
Toggles the In Gate.
2. In Gate
Switches the paper path from the Output Tray to the Mailbox.
3. Entrance Sensor
Monitors paper arriving at the Mailbox.
4. Bin Rolls and Pinch Rolls
Drives the sheet of paper up the Mailbox paper path.
5. Bin Gates 10 through 2
When closed, the paper moves over the top of the Gates. When open, the paper is diverted into the Bin that the Gate controls. In this example, Bin 6 is open.
6. Bin Gate Solenoids 10 through 2
Toggles the corresponding Bin Gate open and closed. Bin 1 does not have a Bin Gate Solenoid.
7. Bin 1 Full Stack Sensor
Monitors the paper level in Bin 1.
8. Vertical LED and Sensor
Monitors paper travel into Bins 2 through 10.



SR1474X

Section 9 - Wiring Diagrams and Signal Information

This section of the manual contains individual block diagrams (BD) to better illustrate the electrical relationships between components and assemblies within the Mailbox. Each wire in the diagrams is tagged with a signal name, and each wire is terminated at both ends with a pin number.

Wiring Diagram Notations

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the printer.

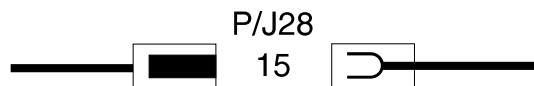
A PLUG



A JACK



CONNECTION OF PIN 15 OF CONNECTORS P28 AND J28.



THE SIGNAL NAME OF A WIRE



THE VOLTAGE MEASURED WITH THE NEGATIVE PROBE OF THE METER ON SG



THE VOLTAGE VALUE OF A SIGNAL



V = The voltage goes LOW when the signal is ON.

In this case, the HEAT signal is ON, so the normal voltage of 4.2VDC drops to 0VDC.

SR1400X

SGSIGNAL GROUND

FGFRAME GROUND

RTNRETURN

There is continuity between SG and RTN. Continuity between FG and SG depends on circuit specifications.

\$\$ in a signal name indicates the signal is coming from the MCU CPU.

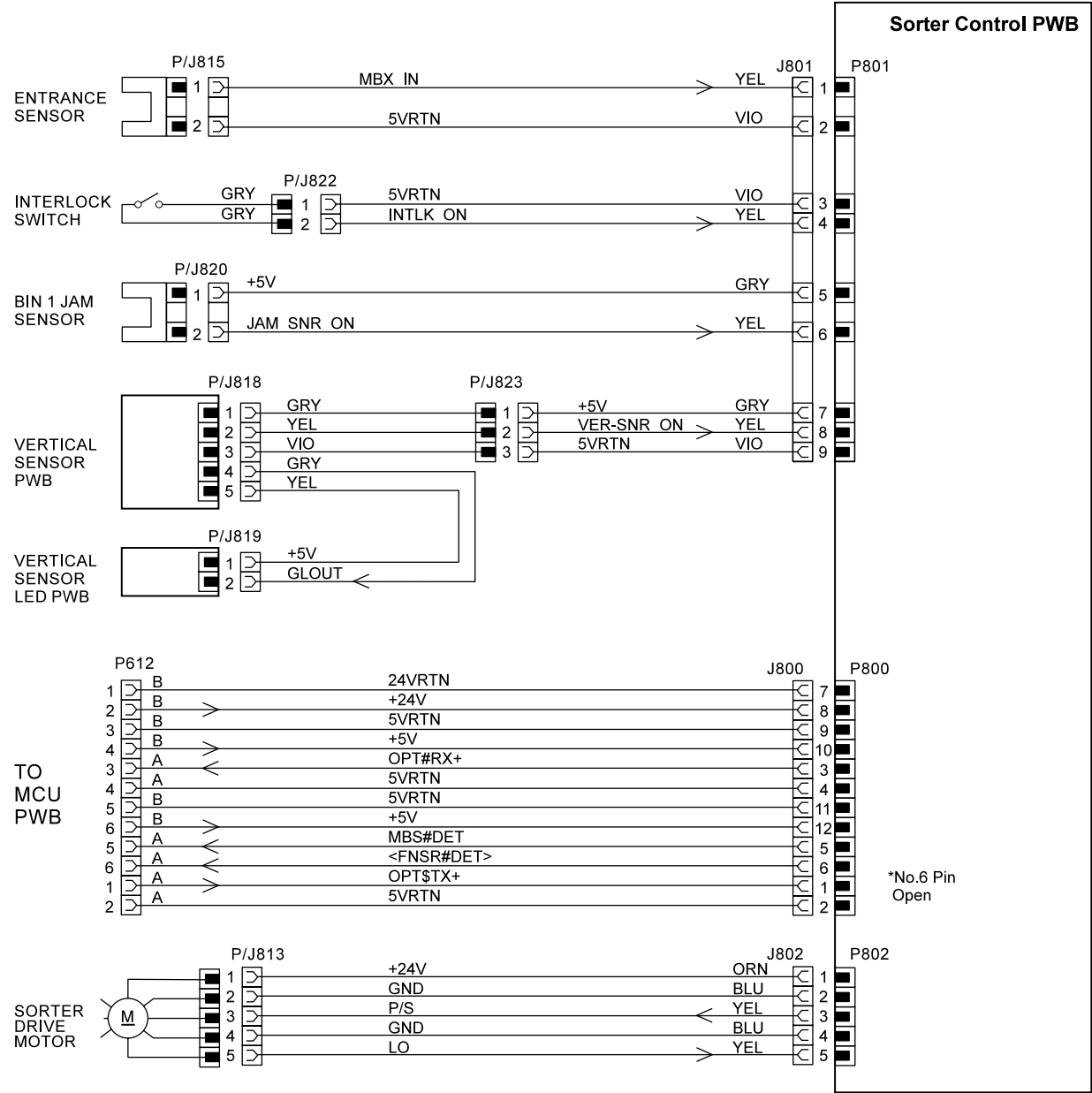
in a signal name indicates the signal is going to the MCU CPU.

TTLTTL displayed in the HIGH level or LOW level columns of the signal tables indicate the signal is ECL_CMOS compatible.

HIGH is 4 to 5 VDC

LOW is 0 to 0.8 VDC

BD1 MCU PWB↔Sorter Control PWB↔Various Sensors, Interlock Switch, and Drive Motor



SER727XB

SER727XB

BD1 MCU PWB↔Sorter Control PWB↔Various Sensors, Interlock Switch, and Drive Motor

The following table shows the signal names for the MCU PWB to the Sorter Control PWB, and for the Sorter Control PWB to various Mailbox components:

Signal Name	Description
MBX IN	Monitors the presence of paper at the Entrance Sensor. High=No paper present. Low=Paper paper present
INTLK ON	Monitors the condition of the Mailbox Left Cover. High=Cover open. Low=Cover closed.
JAM SNR ON	Monitors the presence of paper at the Bin 1 Jam Sensor. High=No paper present. Low=Paper present
VER-SNR ON	Monitors the presence of paper at Bins 2 through 10. High=Paper present. Low=No paper present
P/S	Switches the Sorter Drive Motor. High=Off. Low=On.
LO	Monitors the speed of the Sorter Drive Motor. High=Within specified range. Low=Outside specified range (greater than $\pm 6.5\%$)
GLOUT	Powers the Vertical Sensor LED

BD2 Sorter Control PWB↔IN Gate Solenoid, BIN Gate Solenoids



SER728XB

SER728XB

BD2 Sorter Control PWB↔IN Gate Solenoid, BIN Gate Solenoids

The following table shows the signal names for the Sorter Control PWB to Mailbox solenoids:

Signal Name	Description
GATE SOL2 ON	Controls Bin 2 Gate Solenoid. High=On. Low=Off
GATE SOL3 ON	Controls Bin 3 Gate Solenoid. High=On. Low=Off
GATE SOL4 ON	Controls Bin 4 Gate Solenoid. High=On. Low=Off
GATE SOL5 ON	Controls Bin 5 Gate Solenoid. High=On. Low=Off
GATE SOL6 ON	Controls Bin 6 Gate Solenoid. High=On. Low=Off
GATE SOL7 ON	Controls Bin 7 Gate Solenoid. High=On. Low=Off
GATE SOL8 ON	Controls Bin 8 Gate Solenoid. High=On. Low=Off
GATE SOL9 ON	Controls Bin 9 Gate Solenoid. High=On. Low=Off
GATE SOL10 ON	Controls Bin 10 Gate Solenoid. High=On. Low=Off
KEEP SOL CLOSE	Controls the IN Gate Solenoid which opens and closes the IN Gate. P/J812-1 High & P/J812-3 Low= Close IN Gate.
KEEP SOL OPEN	Controls the IN Gate Solenoid which opens and closes the IN Gate. P/J812-1 Low & P/J812-3 High= Open IN Gate.

Section 10 - Mailbox Specifications

General Specifications

Category	Specification
Configuration	Customer installed option. Attaches on top of the base printer. The Mailbox cannot be installed if the High Capacity Stacker (HCS) is already installed. The basic Mailbox sorts printer output into 10 individual bins, with a maximum capacity of 100 sheets of standard 20lb paper per bin.
Duty cycle	Maximum 150,000 sheets of paper per month, with an average of 25,000 sheets of paper per month.
Mailbox life expectancy	450,000 sheets of paper handled or 5 years, whichever comes first.
Mailbox noise levels	Maximum of 64db while running
Power requirements	The Printer provides all of the Mailbox power requirements; +5VDC and +24VDC.
Size and weight	Height: 465mm Width: 539mm Depth: 590mm Weight: 16kg

Available Mailbox Modes

Category	Specification
Sort Mode	A maximum of 10 sets of 100 sheets per set, with one set delivered to each of the ten bins. Delivered face down in Simplex Mode. Delivered first sheet on the bottom and first printed side face down in Duplex Mode.
Stack Mode	A maximum of 100 sheets delivered to a designated bin. Delivered face down in Simplex Mode. Delivered first printed side face down in Duplex Mode.

Mailbox Components that Need Periodic Replacement

Component	Replace at ...
Exit Roll (complete Assembly)	As needed
Sorter Drive Belt (complete Assembly)	As needed

Printing Speeds While Using the Mailbox

Paper Type	Trays 1 & 2 (prints per minute)	Tray 3 (prints per minute)	Trays 4 & 5 (prints per minute)	MSI (prints per minute)
A4 LEF	Simplex = 32 Duplex = 31	Simplex = 32 Duplex = 28	Simplex = 32 Duplex = 23	Simplex = 26 Duplex = 19
LETTER LEF	Simplex = 32 Duplex = 31	Simplex = 32 Duplex = 28	Simplex = 32 Duplex = 23	Simplex = 26 Duplex = 19

Paper Sizes Recommended for use with the Mailbox

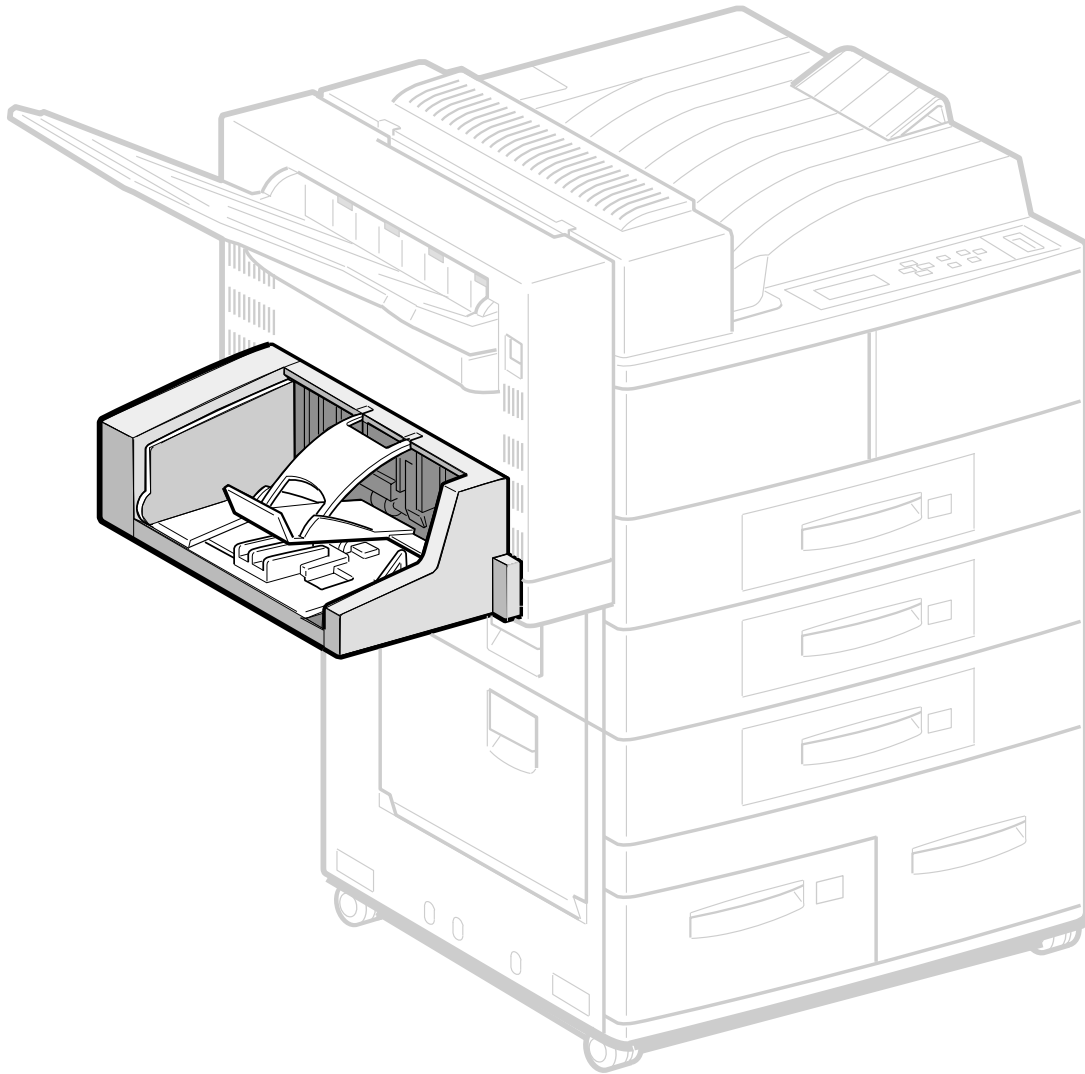
64gsm ~ 90gsm paper for Duplex prints. 64gsm ~ 105gsm paper for Simplex prints.

Paper Type	Use with Simplex runs	Use with Duplex runs (one sheet batch)
Ledger (SEF)	Y	Y
A3 (SEF)	Y	Y
B4 (SEF)	Y	Y
Legal 14" (SEF)	Y	Y
Legal 13" (SEF)	Y	Y
A4 (SEF)	Y	Y
Letter (SEF)	Y	Y
B5 (SEF)	Y	Y
Letter (LEF)	Y	Y
A4 (LEF)	Y	Y
B5 (LEF)	Y	Y
A5 (SEF)	Y	N

3260/4032 Print System

Envelope Feeder

Technical Manual



SR1453X

MINOLTA-QMS, Inc.

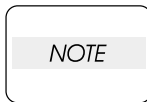
About this Manual	ENV-4
1. The Fault Isolation Procedure (FIP) Flowchart	ENV-5
2. Primary FIPs: Error Codes	ENV-7
2.1 Error Code C8-1	ENV-7
2.2 Error Code C9-1	ENV-8
2.3 Error Code C9-2	ENV-10
2.4 Error Code C9-3	ENV-12
3. Primary FIPs: Envelope Feeder Performance Problems	ENV-14
3.1 Inoperative Envelope Feeder	ENV-14
4. Running Envelope Feeder Diagnostics	ENV-17
5. Removal and Replacement Procedures (RRPs)	ENV-21
RRP 5.1 Envelope Feeder	ENV-22
RRP 5.2 Envelope Feeder Bottom Cover	ENV-24
RRP 5.3 Envelope Feeder Top Cover	ENV-26
RRP 5.4 Envelope Feeder Front Cover	ENV-28
RRP 5.5 Envelope Feeder Rear Cover	ENV-30
RRP 5.6 Envelope Feeder Center Bracket Assembly	ENV-32
RRP 5.7 Envelope Motor	ENV-34
RRP 5.8 Envelope Feeder PWB	ENV-36
RRP 5.9 Feed Belt	ENV-38
RRP 5.10 Envelope Feeder Retard Roll Assembly	ENV-40
RRP 5.11 No Paper Actuator	ENV-42
RRP 5.12 No Paper Sensor	ENV-44
RRP 5.13 Envelope Size Sensor Assembly	ENV-46
RRP 5.14 Envelope Feed Clutch	ENV-48
RRP 5.15 Upper Cover	ENV-50
RRP 5.16 Feed Sensor	ENV-52
6. Locating P/J Connectors	ENV-55
7. PL16 Envelope Feeder Parts List	ENV-57
8. Principles of Operation	ENV-65
9. Wiring Diagrams and Signal Information	ENV 69
10. Envelope Feeder Specifications	ENV-75

About this Manual

This manual contains technical and service information for the QMS 3260/4032 Envelope Feeder. The information is based on and validated using a SIM B1 model Envelope Feeder option. Expect some minor discrepancies in physical appearance, hardware count, and electrical readings due to engineering modifications and manufacturing changes during the life of the product.

Symbols Used in This Manual

Various symbols are used throughout this manual to either provide additional information on a specific topic, or to warn of possible danger present during a procedure or action. Be aware of all symbols when they are used, and always read NOTE, CAUTION, or WARNING messages.



A Note may indicate an operating or maintenance procedure, practice, or condition that is necessary to accomplish a task efficiently. A Note may also provide additional information that is related to a specific subject, or the results achieved through a previous action.



A Caution indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.



A Warning indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in injury or loss of life.

Section 1 - The Fault Isolation Procedure (FIP) Flowchart

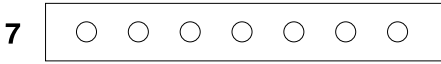
How to Use the FIP Flowchart

1. If you have an error code displayed on the printer Control Panel LCD; go to the **ERROR CODE** box.
2. If you have a Envelope Feeder operation problem; go to the **Envelope Feeder PERFORMANCE** box.
3. Follow the arrow leading from your problem box to the individual FIP (Fault Isolation Procedure) that corresponds to your error code or Envelope Feeder operation problem.
4. Follow the instructions presented in the FIP.
5. If a FIP instructs you to preform a diagnostic test, refer to Section 8 *Running Envelope Feeder Diagnostics*.
6. Primary FIPs usually direct you to a Secondary FIP. In the FIP Flowchart, the relationship between Primary and Secondary FIPs is represented with dotted lines

How to Follow a FIP

1. Each numbered step in a FIP instructs you to perform a certain action or procedure.
2. The instruction is followed by a question.
3. If your response to the question is **Yes**, then follow the instructions for a Yes reply.
4. If your response to the question is **No**, then follow the instructions for a No reply.
5. FIPs often ask you to replace a component.

Refer to Removal/Replacement provides to find detailed procedures for removing and replacing all major parts of the Envelope Feeder.

2	500 SIZE SWITCH SIGNAL (FULL) 1. Install a full Paper Cassette into the Feeder. 2. Check the voltage between J302-1 and J302-2. J302  SER275X EMPTY = +0.45 VDC LETTER SEF = +2.19 VDC A4 SEF = +2.82 VDC ENVELOPE = +2.62 VDC LEGAL 13" = +2.4 VDC LEGAL 14" = +3.08 VDC Is the voltage between J302-1 and J302-2 at a level that corresponds to the paper size that is loaded in the Cassette?	Go to step 3	Replace the 500 Sheet Size Switch RRP 1.5
---	---	--------------	---

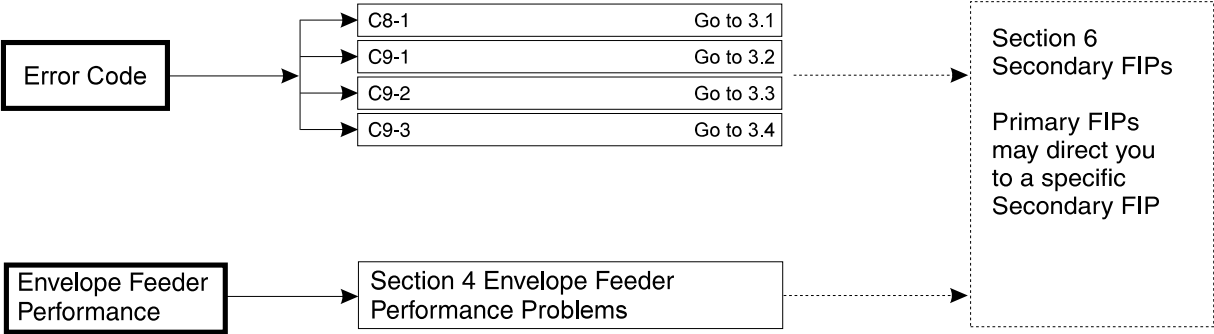
- ↑
• Step number

↑
• Action with substeps, additional information, and a question.

↑
• Action to take if the answer to the question is YES

↑
• Action to take if the answer to the question is NO

FIP Flowchart



SR1410X

Section 2 - Primary FIPs: Error Codes

2.1 Error Code C8-1

There is problem with the Envelope Feed Sensor.

Logic Control on the MCU PWB sensed the Envelope Feed Sensor was actuated while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	ENVELOPE FEED SENSOR INSPECTION Inspect the Envelope Feed Sensor for paper scraps that may be actuating the sensor. Is the Sensor free of paper scraps?	Go to step 2	Remove the paper scraps
2	ENVELOPE FEED SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-20. 2. Insert, then remove, a sheet of paper into the Envelope Feed Sensor. Does the Control Panel LCD display L when you insert the paper into the Feed Sensor, and does the LCD display H when you remove the paper?	Go to step 3	Replace the Envelope Feed Sensor (RRP 5.16)
3	Replace the Envelope PWB (RRP 5.8). Does the C8-1 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

2.2 Error Code C9-1

There is a paper jam between the Envelope Tray and the Envelope Feed Sensor.

Logic Control on the MCU PWB sensed that the Envelope Feed Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Inspect the paper path for paper scraps that may cause a paper jam. Is the paper path free of paper scraps?	Go to step 2	Clean the paper path
2	PAPER INSPECTION Inspect the envelopes that are loaded in the Envelope Tray. Are the envelopes that are loaded in the Envelope Tray wrinkled or damaged?	Replace the envelopes with new envelopes	Go to step 3
3	JAM LOCATION INSPECTION 1. Generate a single envelope feed. 2. Continue generating single envelope feeds until the Feeder stops with a C9-1 jam. 3. Observe where the envelope stopped along the paper path. Did the envelope reach the Feed Sensor?	Go to step 4	Go to step 6
4	ENVELOPE FEED SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-20. 2. Insert, then remove, a sheet of paper into the Envelope Feed Sensor. Does the Control Panel LCD display L when you insert the paper into the Feed Sensor, and does the LCD display H when you remove the paper?	Go to step 5	Replace the Envelope Feed Sensor (RRP 5.16)
5	1. Replace the Envelope PWB (RRP 5.8) 2. Run a series of multiple envelope feeds. Does the C9-1 error code appear?	Replace the MCU PWB (RRP 9.7)	Problem solved

2.2 Error Code C9-1 continued

Step	Actions and Questions	Yes	No
6	Was the envelope fed to or partially through the Transport Rolls?	Clean the Transport Rolls. If there is any obvious damage to the Rolls or to the gears driving them, replace the Rolls and drive gears	Go to step 7
7	ENVELOPE MOTOR TEST Enter Diagnostic Mode - Output Test 8-3 to start the Envelope Motor. Does the Envelope Motor run when you start Output Test 8-3?	Go to step 8	Go to step 9
8	ENVELOPE FEED CLUTCH TEST With Output Test 8-3, enter Output Test 8-17 to actuate the Envelope Feed Clutch. Does the Envelope Feed Clutch actuate when you start Output Test 8-17?	Replace the Envelope Feed Belt (RRP 5.9)	Replace the Envelope Feed Clutch (RRP 5.14)
9	+24VDC CHECK Measure the voltage between P/J700-7 and P/J700-12 on the Envelope PWB. Is there +24VDC between P/J700-7 and P/J700-12?	Replace the Envelope Motor (RRP 5.7)	Use the Block Diagrams in the Base Engine Technical Manual to troubleshoot a loss of +24VDC from the MCU PWB.

2.3 Error Code C9-2

There is a paper jam between the Envelope Feeder and the Tray 2 Take Away Sensor.

Logic Control on the MCU PWB sensed that the Tray 2 Take Away Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •Envelope PWB (RRP 5.8) •MCU PWB (RRP 9.6)		
1	PAPER PATH INSPECTION Inspect the paper path for paper scraps that may cause a paper jam. Is the paper path free of paper scraps?	Go to step 2	Clean the paper path
2	PAPER INSPECTION Inspect the envelopes that are loaded in the Envelope Tray. Are the envelopes that are loaded in the Envelope Tray wrinkled or damaged?	Replace the envelopes with new envelopes	Go to step 3
3	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the LCD display H when you remove the paper?	Go to step 4	Replace the Tray 2 Take Away Sensor (RRP 3.16)
4	ENVELOPE FEED SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-20. 2. Insert, then remove, a sheet of paper into the Envelope Feed Sensor. Does the Control Panel LCD display L when you insert the paper into the Feed Sensor, and does the LCD display H when you remove the paper?	Go to step 5	Replace the Envelope Feed Sensor (RRP 5.16)
5	ENVELOPE MOTOR TEST Enter Diagnostic Mode - Output Test 8-3 to start the Envelope Motor. Does the Envelope Motor run when you start Output Test 8-3?	Go to step 6	Go to step 8

2.3 Error Code C9-2 continued

Step	Actions and Questions	Yes	No
6	ENVELOPE FEED CLUTCH TEST With Output Test 8-3, enter Output Test 8-17 to actuate the Envelope Feed Clutch. Does the Envelope Feed Clutch actuate when you start Output Test 8-17?	Go to step 7	Replace the Envelope Feed Clutch (RRP 5.14)
7	TRANSPORT ROLL OBSERVATION With Output Tests 8-3 and 8-17 running, observe the Transport Rolls Do the Transport Rolls rotate smoothly and without stalling or slipping?	Clean or replace the Transport Rolls.	Replace the Envelope Motor (RRP 5.7) and the Envelope Feed Clutch (RRP 5.14)
8	+24VDC CHECK Measure the voltage between P/J700-7 and P/J700-12 on the Envelope PWB. Is there +24VDC between P/J700-7 and P/J700-12?	Replace the Envelope Motor (RRP 5.7)	Use the Block Diagrams in the Base Engine Technical Manual to troubleshoot a loss of +24VDC from the MCU PWB.

2.4 Error Code C9-3

There is a paper jam between the Envelope Feeder and the Registration Sensor.

Logic Control on the MCU PWB sensed that the Registration Sensor did not actuate within the specified time after the Envelope Feed Clutch was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •Envelope PWB (RRP 14.8) •MCU PWB (RRP 9.6)		
1	PAPER PATH INSPECTION Inspect the paper path for paper scraps that may cause a paper jam. Is the paper path free of paper scraps?	Go to step 2	Clean the paper path
2	PAPER INSPECTION Inspect the envelopes that are loaded in the Envelope Tray. Are the envelopes that are loaded in the Envelope Tray wrinkled or damaged?	Replace the envelopes with new envelopes	Go to step 3
3	REGISTRATION SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-5. 2. Insert, then remove, a sheet of paper into the Registration Sensor. Does the Control Panel LCD display H when you insert the paper into the Registration Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Registration Sensor (RRP 4.6)
4	TRAY 2 TAKE AWAY SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 8-6. 2. Insert, then remove, a sheet of paper into the Tray 2 Take Away Sensor. Does the Control Panel LCD display L when you insert the paper into the Tray 2 Take Away Sensor, and does the LCD display H when you remove the paper?	Go to step 5	Replace the Tray 2 Take Away Sensor (RRP 3.16)
5	ENVELOPE MOTOR TEST Enter Diagnostic Mode - Output Test 8-3 to start the Envelope Motor. Does the Envelope Motor run when you start Output Test 8-3?	Go to step 6	Go to step 8

3260/4032 Print System - Envelope Feeder Technical Manual ENV-13

Section 3 - Primary FIPs: Performance Problems

3.1 Inoperative Envelope Feeder

The Envelope Feeder does not function, the Envelope Motor does not switch on, and the problem is not identified by a displayed Error Code.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	ENVELOPE FEEDER CONNECTION INSPECTION 1. Remove the Envelope Feeder from the Base Engine. 2. Inspect the P/J that connects the Feeder to the Base Engine. Is the P/J free of damage, loose wires, and damaged or missing pins?	Go to step 2	Replace or repair the connector
2	ENVELOPE TEST PRINT Enter Diagnostic Mode - Test Print 23-60 (blank test pattern fed from the Envelope Feeder). Does the Envelope Feeder feed an envelope?	Go to step 3	Go to step 5
3	COMPUTER/PRINTER CONNECTION CHECK Check the computer/printer connection then run an envelope print job from the host computer Does the printer process the envelope print job?	Problem solved	Go to step 4
4	DRIVER SOFTWARE RELOAD 1. Reload the printer driver software. 2. Run an envelope print job from the host computer. Does the printer process the envelope print job?	Problem solved	Replace the QMS Video Controller (RRP 9.8)
5	ENVELOPE MOTOR TEST Enter Diagnostic Mode - Output Test 8-3 to check the Envelope Motor. Does the Envelope Motor run?	Go to step 8	Go to step 6

3.1 Inoperative Envelope Feeder continued

Step	Actions and Questions	Yes	No
6	ENVELOPE FEEDER VOLTAGE CHECK 1. Remove the Envelope Bottom Cover (RRP 5.2). 2. Remove the Envelope Top Cover (RRP 5.3). 3. Remove the Envelope Rear Cover (RRP 5.5). 4. Reinstall the coverless Envelope Feeder onto the printer. 5. Switch on the printer power. 6. Measure the voltage between J700-1 and J700-5, and the voltage between J700-7 and J700-12 on the Envelope PWB. Is there +5VDC between J700-1 and J700-5, and is there +24VDC between J700-7 and J700-12?	Replace the Envelope PWB (RRP 5.8)	Go to step 7
7	MCU PWB POWER OUT CHECK 1. Remove the printer Rear Cover (RRP 1.3). 2. Measure the voltage between J404-6 and FG, and the voltage between J404-12 and FG on the MCU PWB. Is there +5VDC between J404-6 and FG, and is there +24VDC between J404-12 and FG?	Replace the MCU PWB (RRP 9.7)	Replace the LVPS (RRP 9.2)
8	DRIVE BELT INSPECTION do for envelope feeder 1. Remove the Envelope Bottom Cover (RRP 5.2). 2. Remove the Envelope Top Cover (RRP 5.3). 3. Remove the Envelope Rear Cover (RRP 5.5). 4. Reinstall the coverless Envelope Feeder onto the printer. 5. Switch on the printer power. 6. Enter Diagnostic Mode - Output Test 8-3 to run the Envelope Motor. 7. Inspect the gears driven by the Envelope Motor. Are any of the drive gears not rotating?	Replace the problem gears. (PL16)	Replace the Envelope Feed Clutch (RRP 5.14)

Section 4 - Running Envelope Feeder Diagnostics

Diagnostic Mode Routines and Subroutines

While in Diagnostic Mode you have access to a variety of test functions:

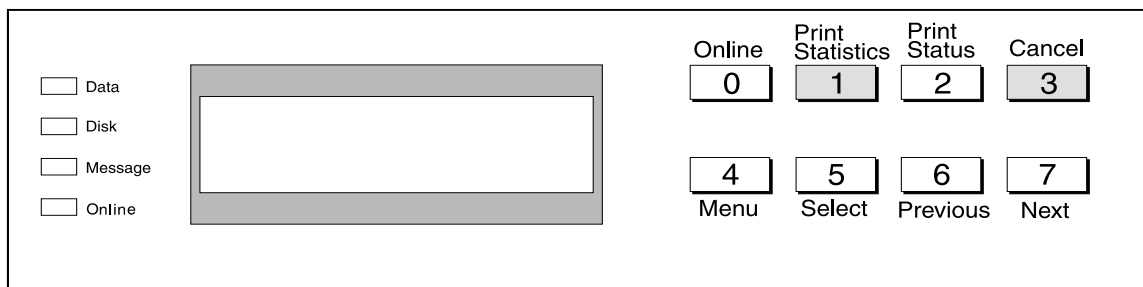
- 1 **Input Test (H/L)**
Check the signal level (on/off) coming from a specific sensor.
- 1 **Output Test**
Switch on and off a specific component, such as a motor or solenoid.
- 1 **Test Print**
Generate a built-in Test Pattern.

Before running Diagnostics

Connect the printer Control Panel to the MCU PWB (Refer to *Section 7-Diagnostic Mode and the Control Panel* of the Base Engine Technical Manual) on how to connect and use the Control Panel to run Diagnostics).

To enter Diagnostic Mode

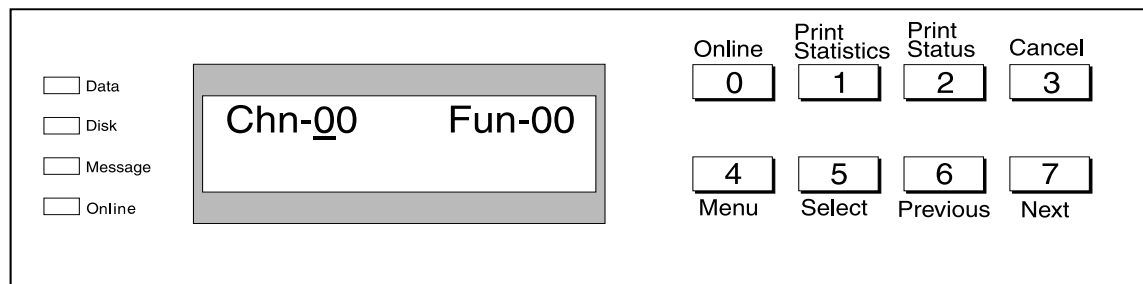
1. Press and hold [1] and [3] while you switch on printer main power.



SER875X

2. When the Control Panel LCD displays *Chn-00 Fun-00*, as shown below, release [1] and [3].

The printer is now in Diagnostic Mode.



SER876X

Running an Output Test

Use this Diagnostic routine to actuate Envelope Feeder components such as motors and clutches. You can run multiple output tests simultaneously.

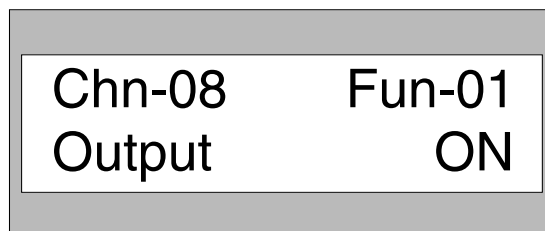
1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select an Envelope Feeder related Output Test from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Output test.

The LCD displays the *Chn* - *Fun* number of the test, *Output*, and *ON* to indicate the test has started.

The output component under test should click, switch on, or start running.



SER877X

7. Press Function Key [0] to stop the Output Test.
8. Press [1] to restart the test if necessary.

Output Tests for the Envelope Feeder

Chain (Routine)	Function (Subroutine)	Switches on the...	Comments
8	3	Envelope Motor	
8	17	Envelope Feed Clutch	Stop the test after 5 seconds

Running an Input Test (H/L)

Use this Diagnostic routine to check the digital signal level (High or Low) from an Envelope Feeder sensor. This test tells you whether or not a sensor is working correctly and is sending a signal to the MCU PWB.

1. Enter Diagnostic Mode

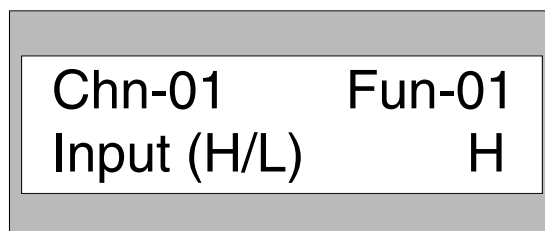
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select an Envelope Feeder related Input Test (H/L) from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Input test.

The LCD displays the *Chn* - *Fun* number of the test, *Input (H/L)*, and *H* or *L* to indicate the status of the sensor at that moment.

7. Watch the status field as you manually actuate the sensor.

The status field should change from either H to L or L to H as you manually actuate and deactuate the sensor.



SER878X

8. When you are finished with this test, switch off printer main power to exit Diagnostic Mode.

Input Tests (H/L) for the Envelope Feeder

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
7	12	Envelope Feeder No Paper Sensor	H = No paper sensed L = Paper sensed
8	20	Envelope Feed Sensor	H = Paper sensed L = No paper sensed

Running Test Print

Use this diagnostic routine to print a specific type of envelope test pattern. The test patterns are built into the printer circuitry, so Test Print is an excellent tool for isolating and diagnosing Envelope Feeder problems.

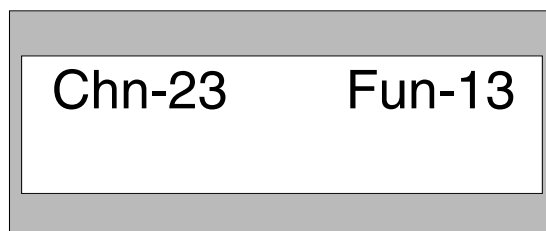
To generate a Test Print

1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select a specific Test Print pattern from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to generate a Test Print.

The printer generates test prints until you stop the routine.



SER881X

To stop Test Print

Press Function Key [0].

NOTE

Envelopes fed from the Envelope Feeder cannot be duplexed.

Envelope Feeder Test Print table

Chain (Routine)	Function (Subroutine)	Test Pattern Type
23	60	Envelope Feeder Simplex Mode: Blank sheet of paper
23	61	Envelope Feeder Simplex Mode: Solid black up to the white margins image area
23	63	Envelope Feeder Simplex Mode: 4 dot grid pattern

Section 5 - Removal and Replacement Procedures (RRP)

This section contains the removal and replacement procedures for major parts and subsystems within the printer Envelope Feeder.

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power.
2. Disconnect the AC power cord from the wall outlet.
3. Wear an electrostatic discharge wrist strap to protect sensitive printer parts from damage.

Work Notes

NOTE

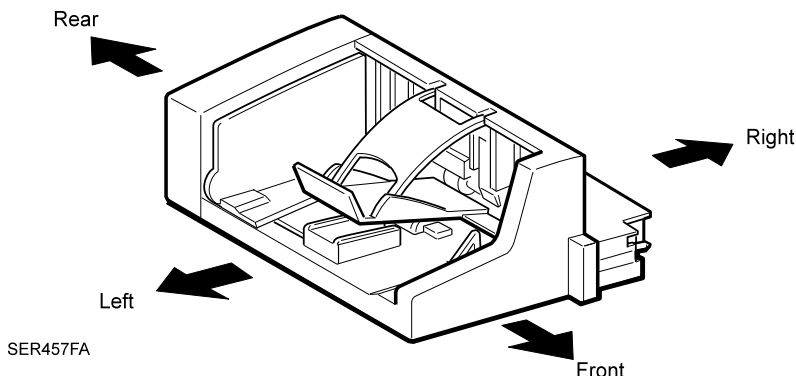
Names of parts that appear in the RRP's may not be exactly the same as the names appear in the parts list. For example, an RRP for the MSI Tray Assembly may appear on the parts list as Tray Assembly MSI.

CAUTION

Always reinstall the correct type and size screws. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install a part.

Notations in the RRP text

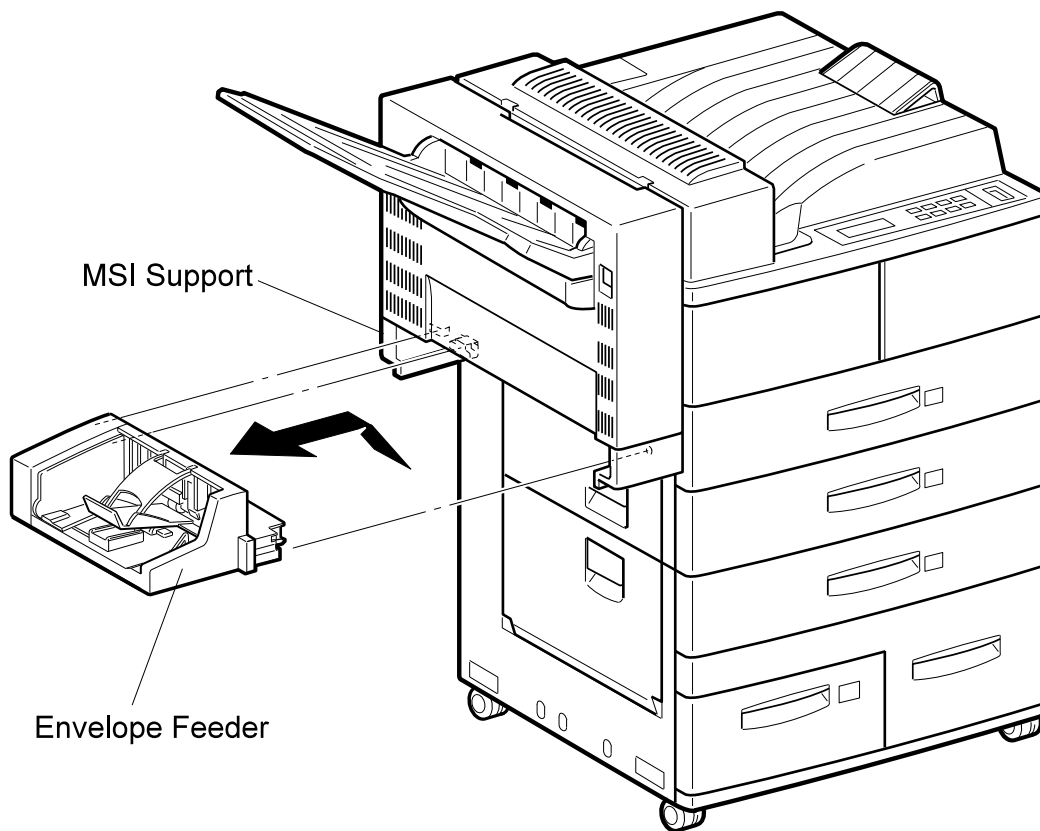
- Locations, such as R or right, given in the RRP's assume you are facing the printer console panel.



SER457FA

- The notation "(See RRP X.Y)" in a RRP step, directs you to another RRP to see how to perform a related or pre-requisite procedure.
- The notation "(Figure X.Y)" points to the illustration that corresponds to the RRP you are performing.
- The notation "(PLX)" indicates that this component is listed in the PLX parts list.
- Arrows in an illustration show direction of movement when removing a component.
- Slashes in a part name indicate that numerous components share the same heading and function. For example, "Gears In/Feed/Out" refers to Gear In, Gear Feed, and Gear Out.

RRP 5.1 Envelope Feeder (PL 16.1)



SER452XB

SER452XB

RRP 5.1 Envelope Feeder (PL16.1)

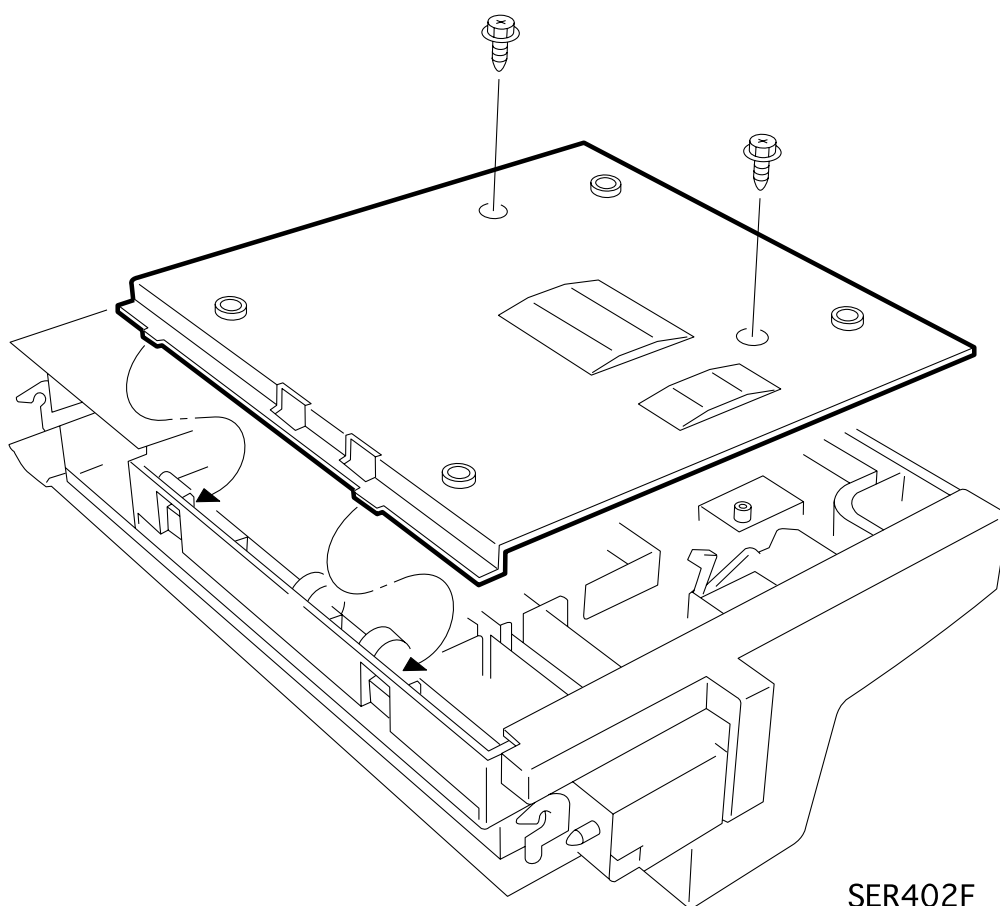
Removal

1. Pull the Envelope Feeder out and remove it from the MSI Support.

Replacement

1. If the MSI is installed, pull the MSI Assembly out of the MSI Support.
2. Align the two pins on the Envelope Feeder with the corresponding openings in the MSI Support, and slide the Feeder into the Support.
3. Push the Envelope Feeder firmly against the MSI Support to make sure the Feeder is securely in place.

RRP 5.2 Envelope Feeder Bottom Cover (PL16.1)



SER402F

RRP 5.2 Envelope Feeder Bottom Cover (PL16.1)

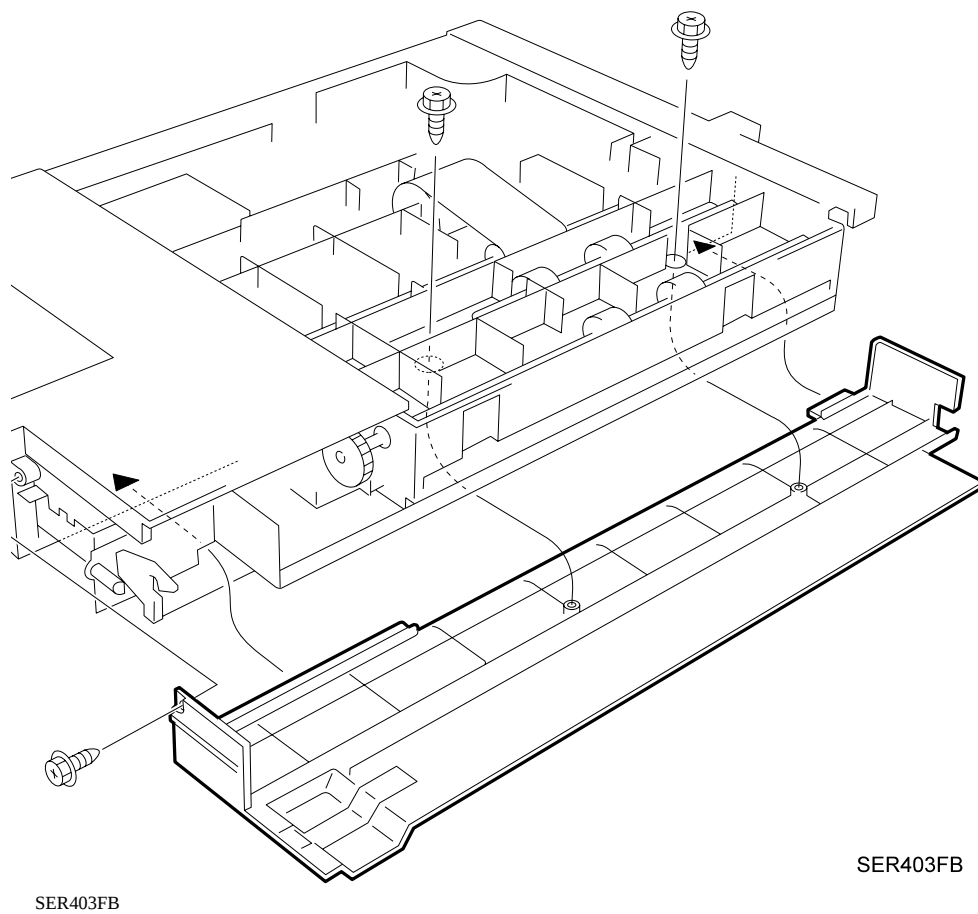
Removal

1. Remove the Envelope Feeder from the base engine (RRP 5.1).
2. Turn the Feeder over so you can access the bottom.
3. Remove the two screws securing the Bottom Cover to the Feeder frame, and remove the Cover.

Replacement

1. Turn the Feeder upside down.
2. Reinstall the Bottom Cover onto the Feeder frame.
3. Use two screws to secure the Bottom Cover to the Feeder frame.

RRP 5.3 Envelope Feeder Top Cover (PL16.1)



RRP 5.3 Envelope Feeder Top Cover (PL16.1)

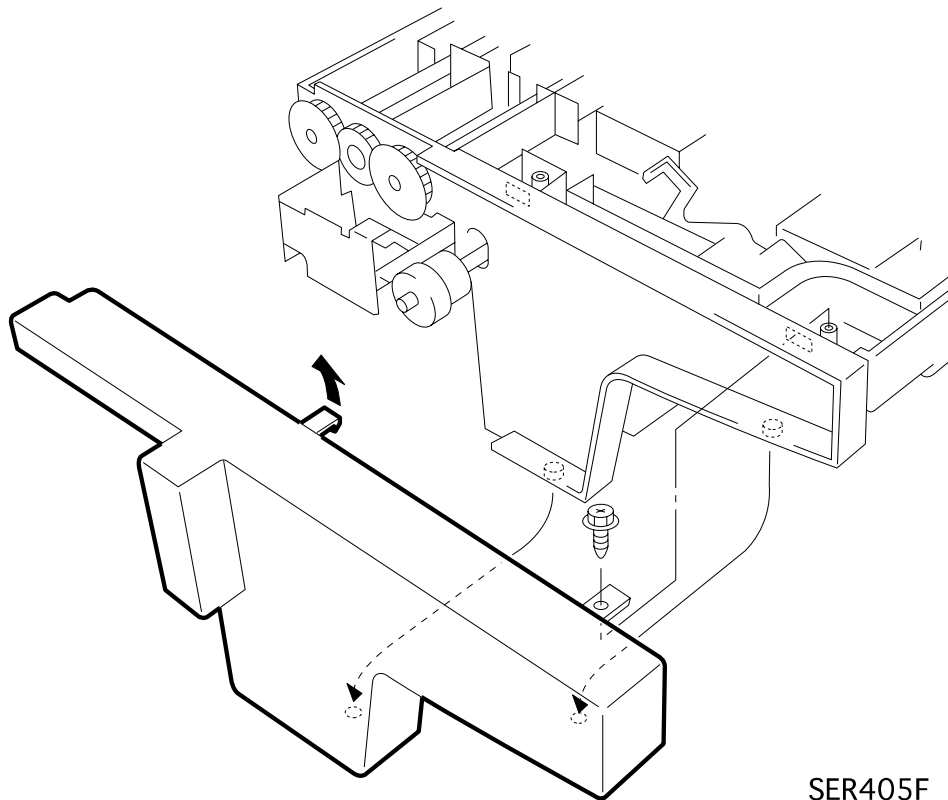
Removal

1. Remove the Envelope Feeder Bottom Cover (RRP 5.2).
2. Remove the two screws at the top and one screw on the side securing the Top Cover to the Feeder frame, and remove the Top Cover.

Replacement

1. Reinstall the Top Cover onto the Feeder frame.
2. Use three screws to secure the Top Cover to the Feeder frame.
3. Reinstall the Envelope Feeder Bottom Cover (RRP 5.2).

RRP 5.4 Envelope Feeder Front Cover (PL16.1)



SER405F

SER405F

RRP 5.4 Envelope Feeder Front Cover (PL16.1)

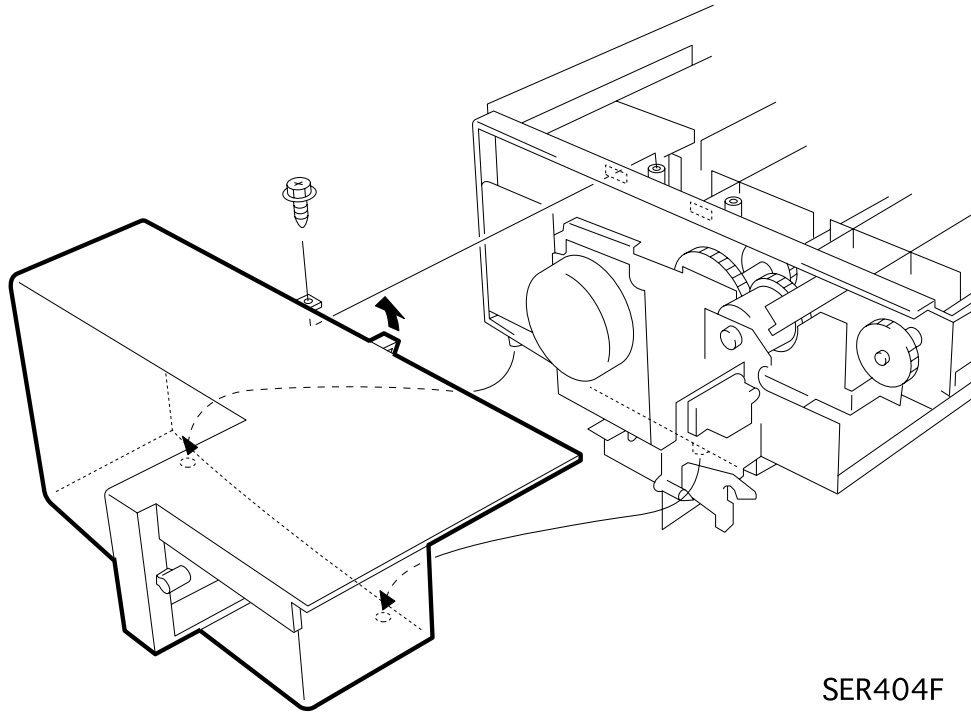
Removal

1. Remove the Bottom Cover (RRP 5.2).
2. Remove the screw securing the Front Cover to the Feeder frame, and remove the Cover.

Replacement

1. Reinstall the Front Cover onto the Feeder frame.
2. Align the positioning tabs on the Cover with the tabs on the frame.
3. Use one screw to secure the Cover to the frame.
4. Reinstall the Bottom Cover (RRP 5.2).

RRP 5.5 Envelope Feeder Rear Cover (PL16.1)



SER404F

RRP 5.5 Envelope Feeder Rear Cover (PL16.1)

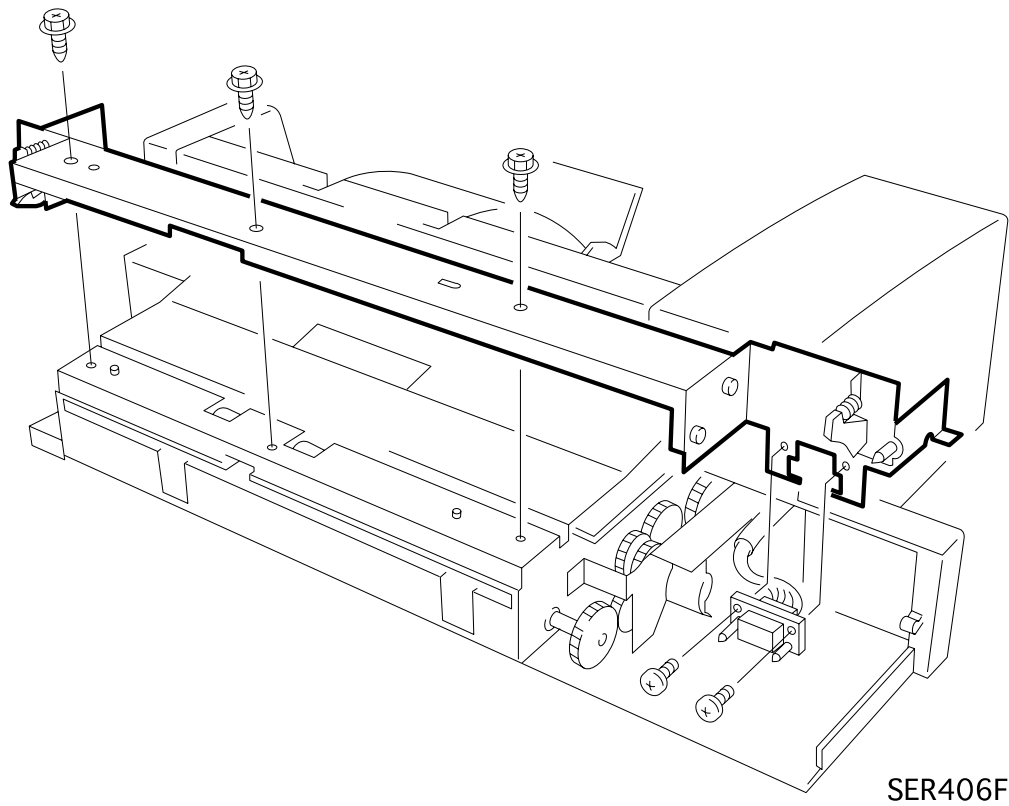
Removal

1. Remove the Bottom Cover (RRP 5.2).
2. Remove the Top Cover (RRP 5.3).
3. Remove the screw securing the Rear Cover to the Feeder frame.
4. Release the latch and remove the Cover.

Replacement

1. Reinstall the Rear Cover onto the Feeder frame.
2. Press in to make sure the Cover latches into place.
3. Use a screw to secure the Cover to the frame.
4. Reinstall the Top Cover (RRP 5.3).
5. Reinstall the Bottom Cover (RRP 5.2).

RRP 5.6 Envelope Feeder Center Bracket Assembly (PL16.1)



SER406F

RRP 5.6 Envelope Feeder Center Bracket Assembly (PL16.1)

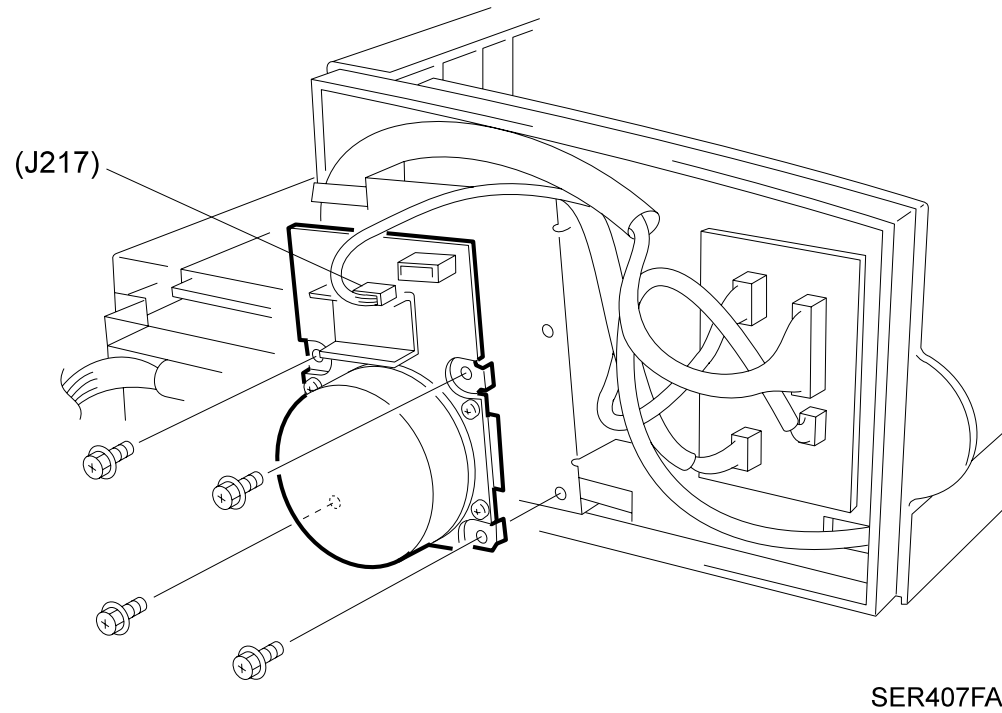
Removal

1. Remove the Top Cover (RRP 5.3).
2. Remove the two screws securing P/J 604 to the Center Bracket, and slide the P/J off of the Bracket.
3. Remove the three screws securing the Center Bracket Assembly to the frame, and remove the Center Bracket.

Replacement

1. Reinstall P/J 604 into the cutout in the Center Bracket, and use two screws to secure the P/J.
2. Align the three screw holes and two positioning holes with the three screw holes and two positioning tabs on the Center Bracket.
3. Use three screws to secure the Bracket to the frame.
4. Reinstall the Top Cover (RRP 5.3).

RRP 5.7 Envelope Motor (PL16.2)



SER407FA

RRP 5.7 Envelope Motor (PL16.2)

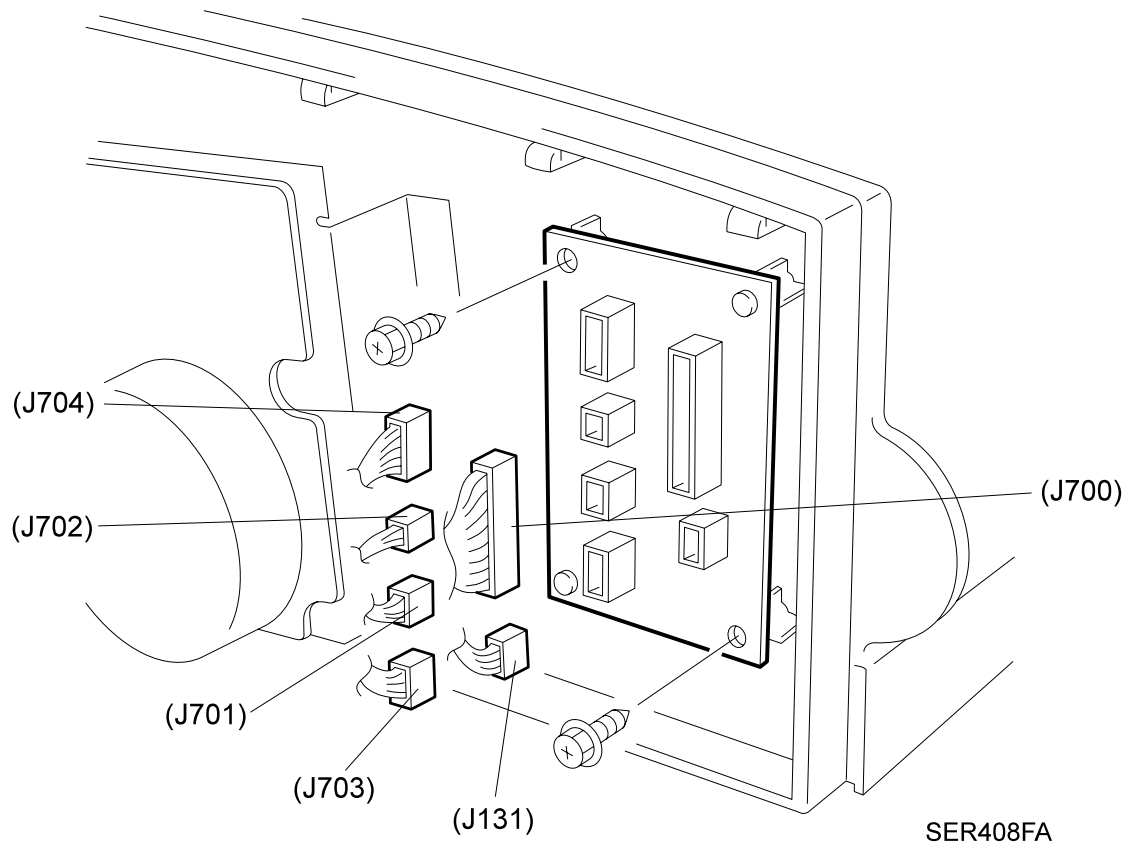
Removal

1. Remove the Rear Cover (RRP 5.5).
2. Disconnect the P/J 217 from the Envelope Motor PWB.
3. Remove four screws securing the Motor to the Motor Bracket, and remove the Motor.

Replacement

1. Reinstall the Motor onto the Motor Bracket, and use four screws to secure the Motor to the Bracket.
2. Reconnect the P/J 217 to the Envelope Motor PWB.
3. Reinstall the Rear Cover (RRP 5.5).

RRP 5.8 Envelope Feeder PWB (PL16.2)



SER408FA

RRP 5.8 Envelope Feeder PWB (PL16.2)

Removal

1. Remove the Rear Cover (RRP 5.5).
2. Disconnect the six P/Js from the Envelope Feeder PWB.
3. Remove the two screws securing the PWB to the frame, and remove the PWB.

Replacement

1. Reinstall the Envelope Feeder PWB onto the Envelope Feeder frame.
2. Use two screws to secure the PWB to the frame.
3. Reconnect the six P/Js to the PWB.
4. Reinstall the Rear Cover (RRP 5.5).

RRP 5.9 Feed Belt (PL16.2)

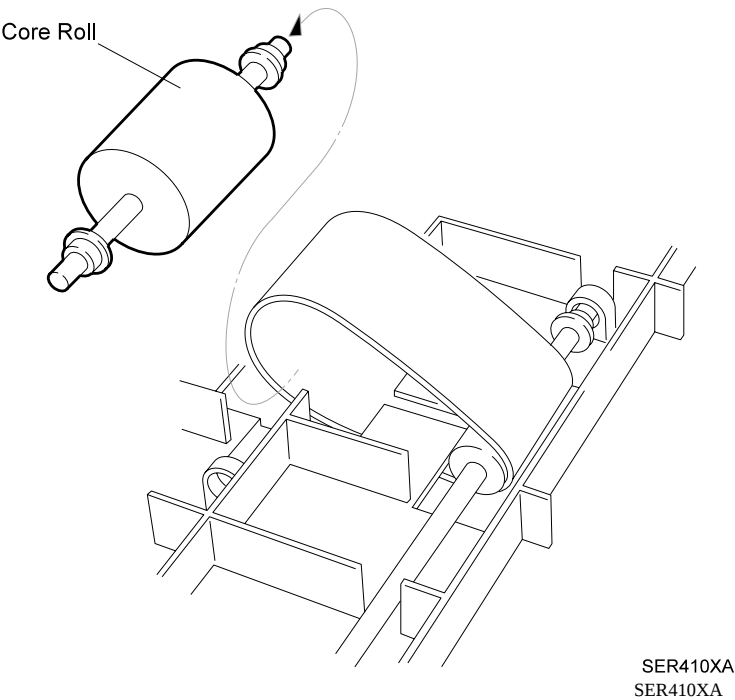


Figure 1

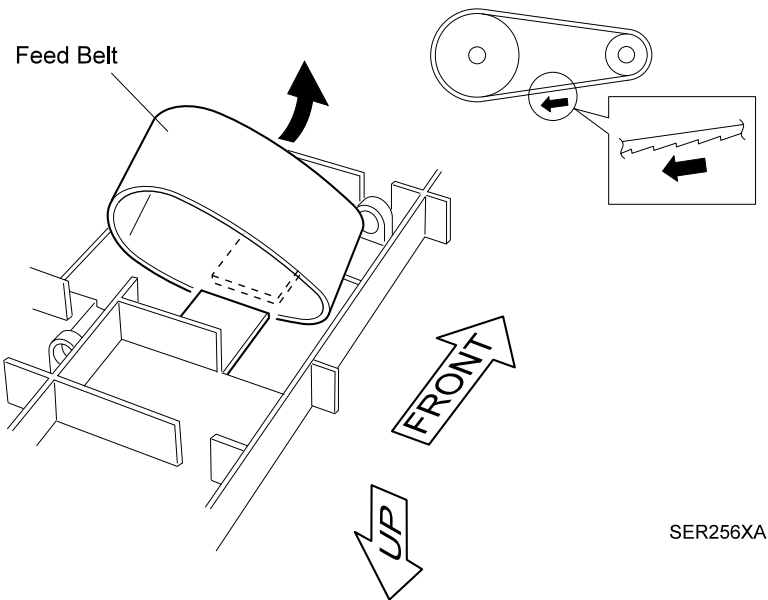


Figure 2

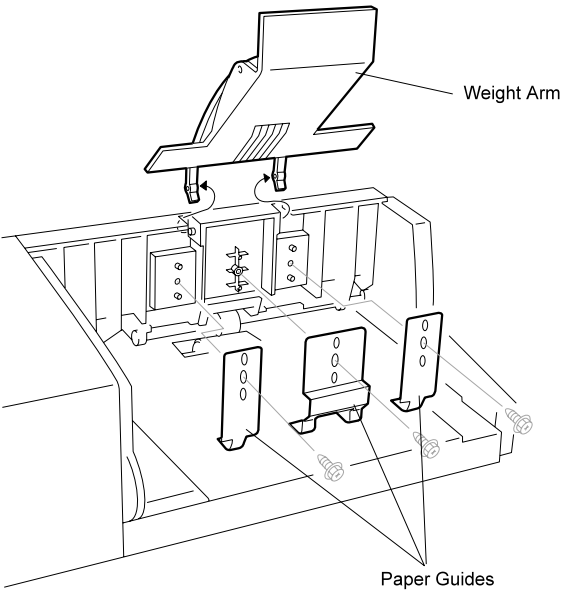
Removal

1. Remove the Rear Cover (RRP 5.5).
2. Remove the Center Bracket Assembly (RRP 5.6).
3. Pull the Motor Bracket away from the Feeder (refer to RRP 5.14).
4. Remove one KL clip from the end of the Core Roll shaft.
5. Slide the shaft free, and remove it and the Core Roll from the frame (Figure 1).
6. Remove the KL clip from the inboard end of the Bottom Roll shaft.
7. Slide the shaft out the side of the feeder, far enough to free the Feed Belt from the Bottom Roll.
8. Remove the Feed Belt from the Feeder (Figure 2).

Replacement

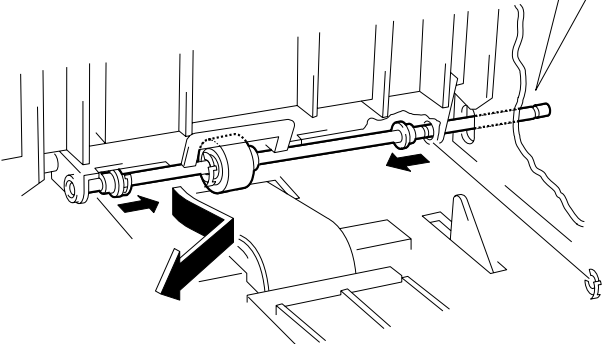
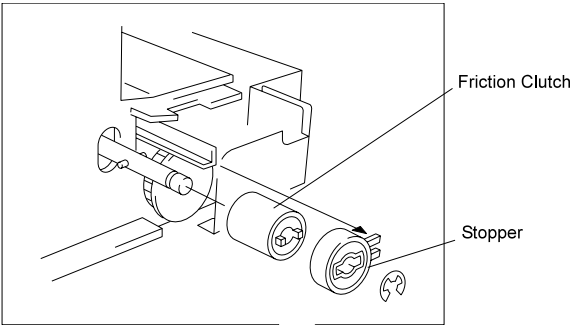
1. Position the Feed Belt so the tooth of the Belt is pointing in the direction as shown in the illustration (Figure 2).
2. Look at the side of the Feed Belt, and align the Belt so the teeth are in the position as shown in Figure 2.
3. Slide the Feed Belt over the Bottom Roll.
4. Reinstall the Bottom Shaft into the slot in the Feeder, and use a KL-clip to secure the shaft to the frame.
5. Reinstall the Motor Bracket to the frame (refer to RRP 5.14).
6. Slide the Core Roll and Core Shaft through the Feed Belt.
7. Reinstall, if necessary, the Bearings on to both ends of the Core Shaft.
8. Slide the Core Shaft into the Bearing holes in the frame.
9. Use a KL-clip to secure the free end of the Core Shaft to the Feeder frame.
10. Use your finger to drive the Belt forward to make sure it is centered on the Core Roll.
11. Reinstall the Center Bracket Assembly (RRP 5.6).
12. Reinstall the Rear Cover (RRP 5.5).

RRP 5.10 Envelope Feeder Retard Roll Assembly (PL16.3)



SER413XA
SER413XA

Figure 1



SER414XB

Figure 2

SER414XB

SER415F

Figure 3

RRP 5.10 Envelope Feeder Retard Roll Assembly (PL16.3)

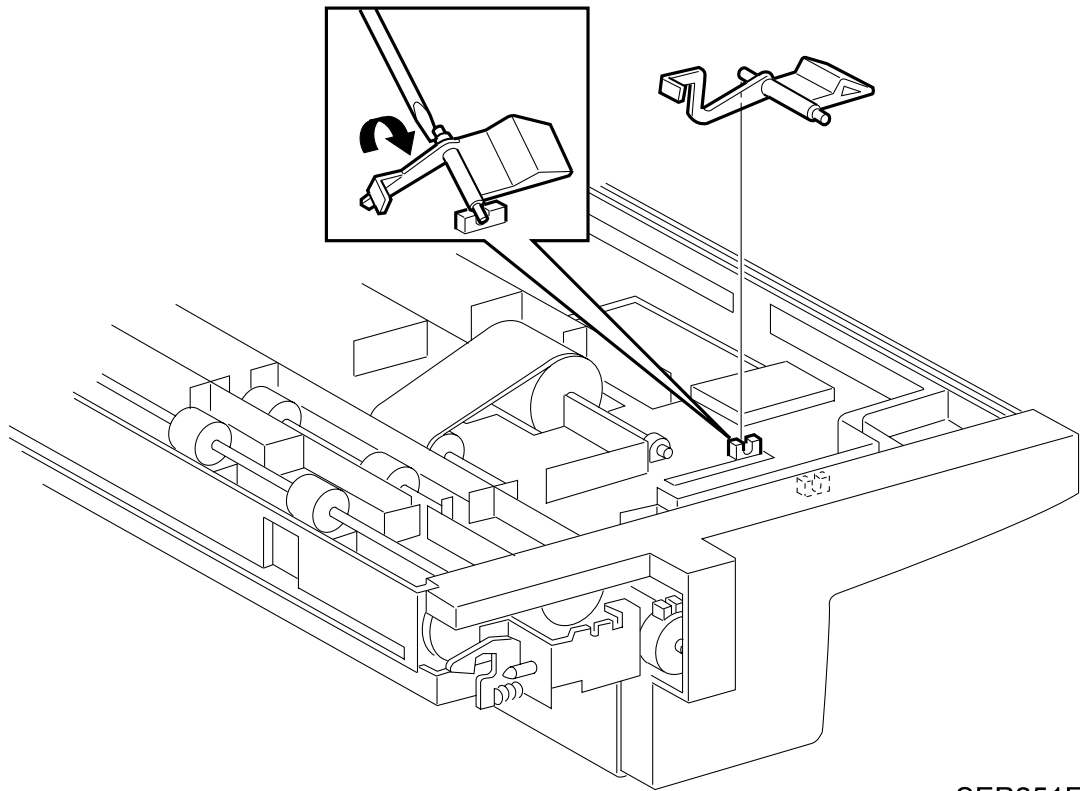
Removal

1. Remove the Top Cover (RRP 5.3).
2. Remove the Front Cover (RRP 5.4).
3. Spread the Weight Arm legs so they release from the Feeder frame, and remove the Weight Arm (Figure 1).
4. Use a pencil to mark the position of the three screws that secure the two Paper Guide 1's and the Paper Guide (Figure 1).
5. Remove the three screws that secure the two Paper Guide 1's and the Paper Guide to the Upper Cover (Figure 1).
6. Remove the KL clip securing the Friction Clutch and Stopper to the Retard Shaft (Figure 2), and remove the Clutch and the Stopper.
7. Remove the KL-clip securing one end of the Retard Shaft to the frame.
8. Slide the Retard Shaft out of the Feeder (Figure 2).
9. Slide the Feeder Bearing off of the Retard Shaft.
10. Remove the KL clip securing the Retard Roll to the Shaft and remove the Roll.

Replacement

1. Slide the Retard Roll onto the Retard Shaft.
2. Rotate the Roll until the notches in the Roll engage the pin in the Shaft (Figure 3).
3. Use a KL clip to secure the Roll to the Shaft.
4. Reinstall, if necessary, the two Retard Shaft bearings.
5. Reinstall the Shaft into the Feeder (Figure 2), and use a KL clip to secure the Shaft.
6. Slide the Clutch Stopper and Friction Clutch onto the Retard Shaft (Figure 2).
7. Make sure the notch on the Stopper is trapped by the plastic lip of the Retard Holder.
8. Use a KL clip to secure the Clutch and Stopper.
9. Align the two Paper Guide 1's and the Paper Guide with the positioning tabs on the Upper Cover (Figure 1).
10. Reinstall the three screws in the marked positions and secure the Paper Guide 1's and the Paper Guide.
11. Reinstall the Weight Arm onto the Feeder Assembly.
12. Reinstall the Front Cover (RRP 5.4).
13. Reinstall the Top Cover (RRP 5.3).

RRP 5.11 No Paper Actuator (PL16.3)



SER251F

SER251F

RRP 5.11 No Paper Actuator (PL16.3)

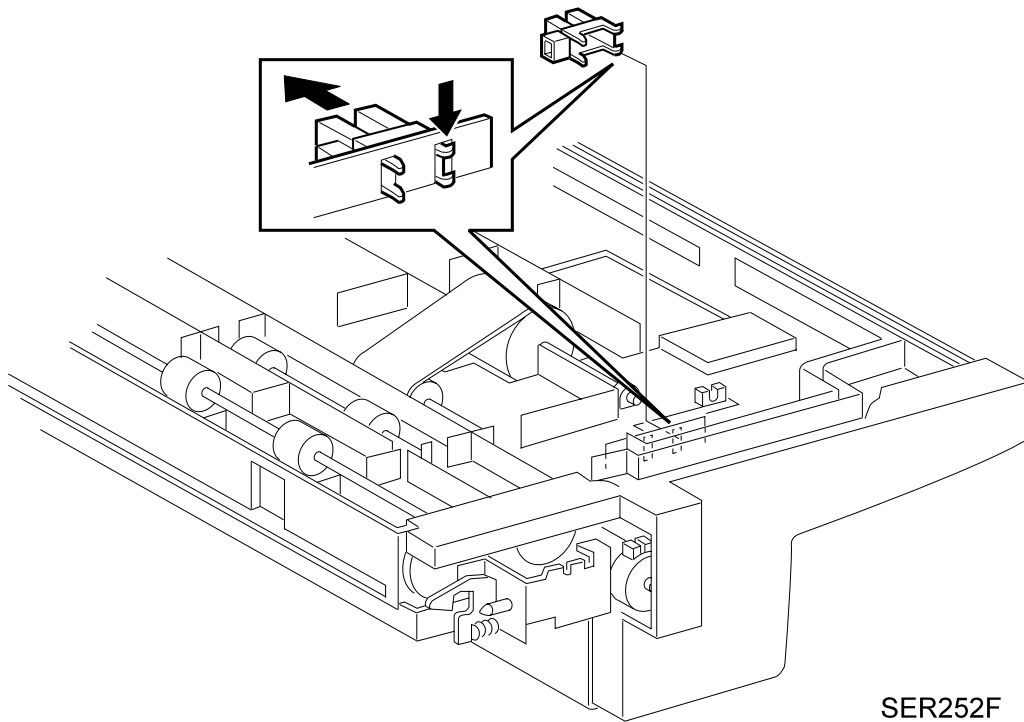
Removal

1. Remove the Bottom Cover (RRP 5.2).
2. Use the flat blade of a standard screwdriver to carefully pry the Actuator legs out of the slots in the frame, and remove the Actuator.

Replacement

1. Position the Actuator as shown in the figure.
2. Press the Actuator legs into the slots in the frame.
3. Rock the Actuator back and forth to make sure it moves freely in the slots, and the small end of the Actuator moves freely between the two arms of the No Paper Sensor.
4. Reinstall the Bottom Cover (RRP 5.2).

RRP 5.12 No Paper Sensor (PL16.3)



SER252F

SER252F

RRP 5.12 No Paper Sensor (PL16.3)

Removal

1. Remove the Bottom Cover (RRP 5.2).
2. Squeeze the Sensor latches while pulling the Sensor away from the frame, and remove the Sensor.
3. Disconnect P/J 130 from the Sensor.

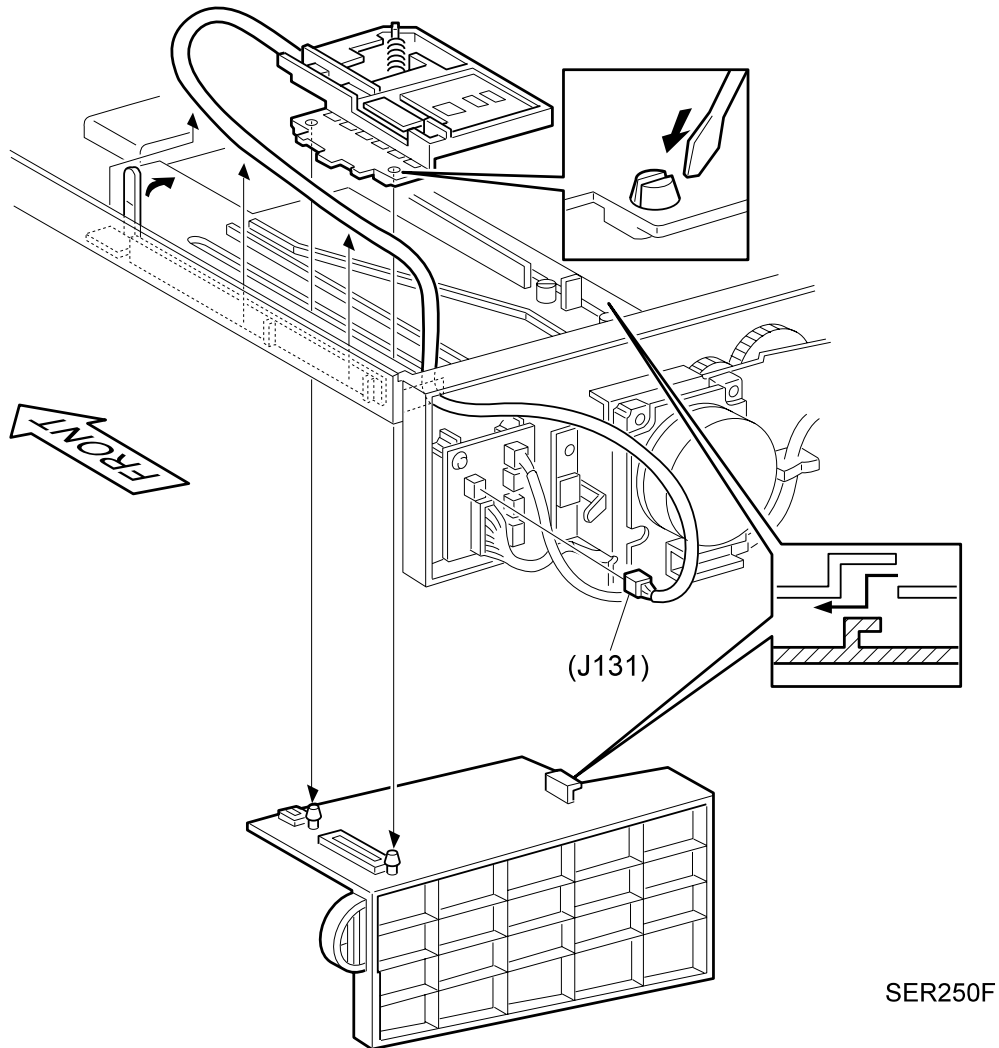
Replacement

1. Reconnect P/J130 to the Sensor.
2. Position the Sensor so the P/J faces the rear of the Envelope Feeder.
3. Hook the front Sensor latches into the opening in the frame.
4. Insert the rear latches into the adjacent opening and press the Sensor into place.

The latches snap into place.

5. Rock the No Paper Actuator to make sure it moves freely between the two arms of the No Paper Sensor.
6. Reinstall the Bottom Cover (RRP 5.2).

RRP 5.13 Envelope Size Sensor Assembly (PL16.1 - 16)



SER250F

RRP 5.13 Envelope Size Sensor Assembly (PL16.1 - 16)

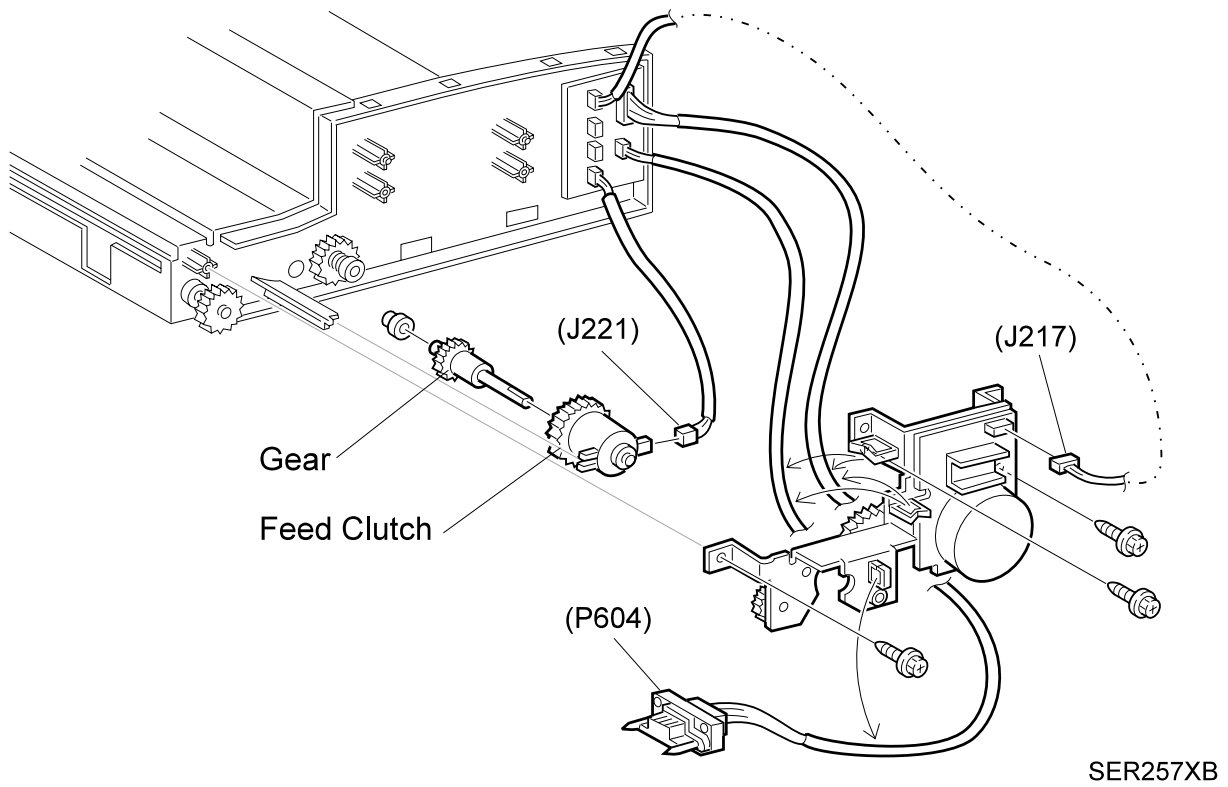
Removal

1. Remove the Bottom Cover (RRP 5.2).
2. Remove the Rear Cover (RRP 5.5)
3. Disconnect P/J 131 from the Envelope PWB.
4. Remove the wire harness from the wire channel and from the harness clip.
5. Use the flat blade of a standard screwdriver to carefully turn the two tabs that secure the Sensor Assembly to the Side Guide, and remove the Assembly.

Replacement

1. Route the wire harness through the wire channel and under the harness clip.
2. Insert the plug end of the wire harness into the square opening at the side of the frame, and reconnect it to P/J 131 on the Envelope PWB.
3. Make sure the opening in the spring-loaded plastic arm on underside of the Assembly hooks onto the metal tab of the variable resistor.
4. Push the arm back and forth to make sure it and the resistor tab move smoothly together.
5. Slide the Side Guide out to maximum so it presses against the frame.
6. Reinstall the Size Sensor Assembly, arm and resistor facing against the frame, onto the Feeder frame.
7. Line up the two circular holes in the Assembly with the two tabs on the Side Guide.
8. Push up slightly on the spring-loaded arm so the metal tab of the variable resistor is on top of the molded track.
9. Hold the Side Guide in place as you firmly press the Sensor Assembly against the frame until the two tabs snap into place in the two holes and secure the Assembly to the Side Guide.
10. Slide the Side Guide to the center of the Feeder and observe the Assembly plastic arm to make sure it moves up and down as you move the Side Guide to the center and out again.
11. If the arm does not move up and down, slide the Side Guide out to maximum again, and lift up slightly on the plastic arm and put it back on the track.
12. Reinstall the Rear Cover (RRP 5.5)
13. Reinstall the Bottom Cover (RRP 5.2).

RRP 5.14 Envelope Feed Clutch (PL16.2 - 11)



SER257XB

RRP 5.14 Envelope Feed Clutch (PL16.2 - 11)

Removal

1. Remove the Rear Cover (RRP 5.5).
2. Remove the Center Bracket (RRP 5.6).
3. Disconnect P/J 221 from the Feed Clutch.
4. Remove the three screws securing the Motor Bracket to the Feeder frame.
5. Carefully pull the Motor Bracket an inch away from the frame.
6. Slide the Feed Clutch off of the Bracket.
7. Remove the Gear from the Clutch.

Replacement

1. Slide the Gear into the Feed Clutch.
2. Reinstall the Clutch into the cutout in the Motor Bracket.

Make sure the metal tab on the Bracket slides into the locking notch on the Clutch.

3. Press the Motor Bracket against the Feeder frame, while guiding the end of the Clutch Gear into the Bearing in the frame.
4. Use three screws to secure the Bracket to the frame.
5. Reconnect P/J 221 to the Feed Clutch.
6. Reinstall the Center Bracket (RRP 5.6).
7. Reinstall the Rear Cover (RRP 5.5).

RRP 5.15 Upper Cover (PL16.3)

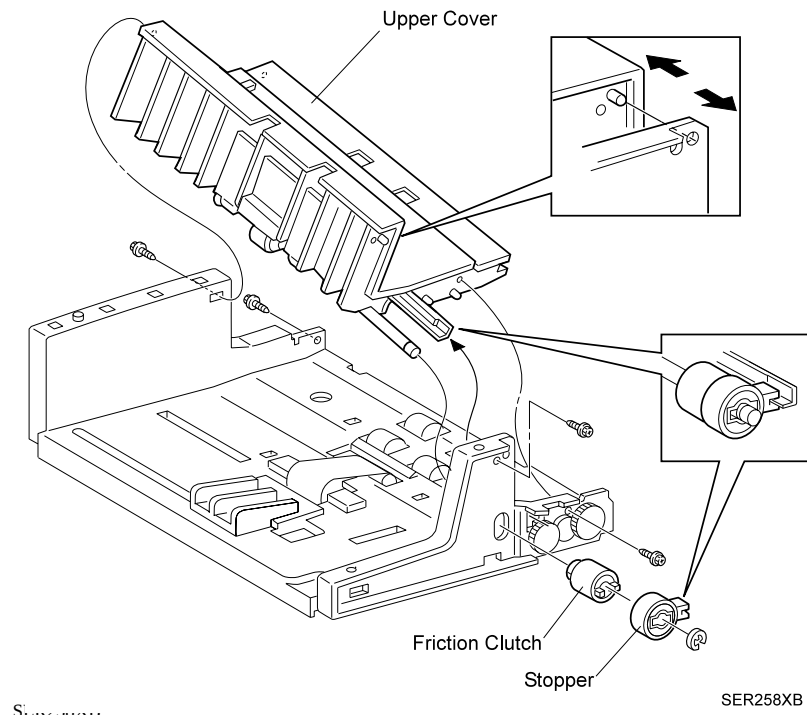


Figure 1

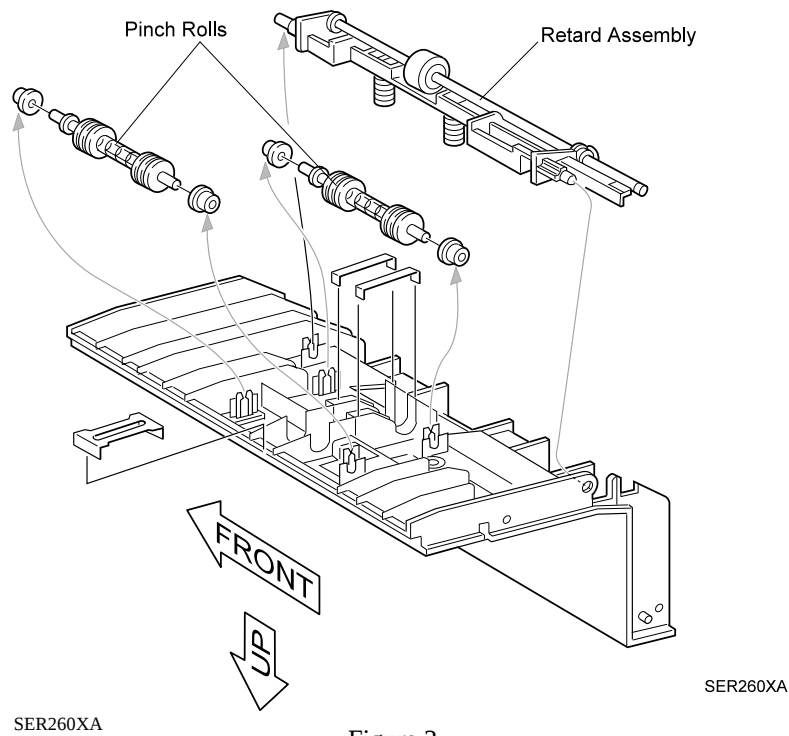


Figure 2

RRP 5.15 Upper Cover (PL16.3)

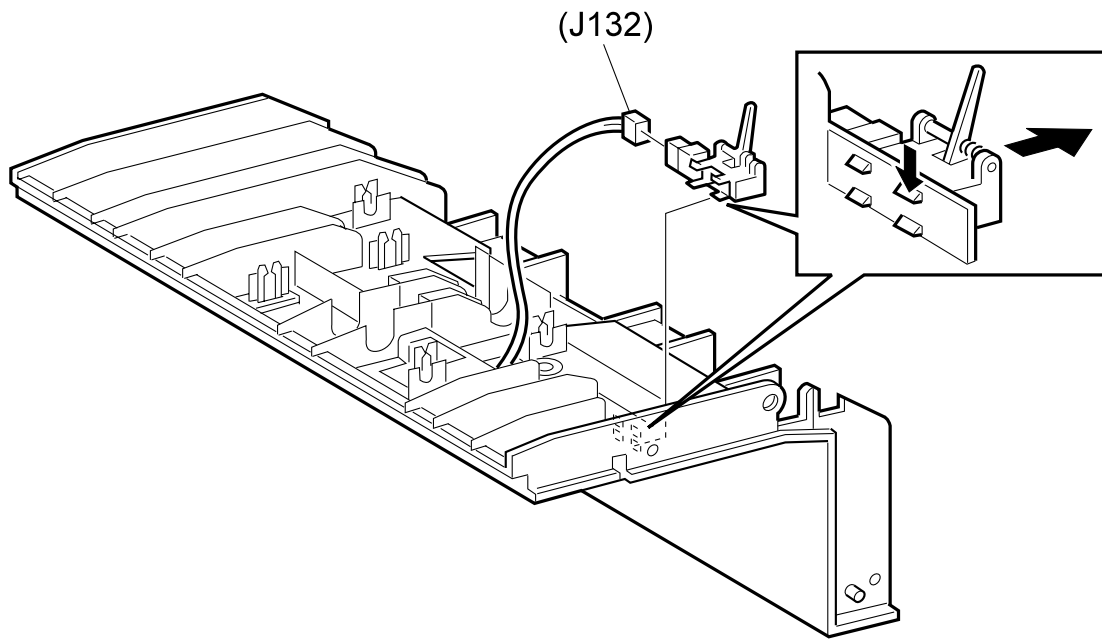
Removal

1. Remove the Front Cover (RRP 5.4).
2. Remove the Center Bracket Assembly (RRP 5.6).
3. Spread the Weight Arm legs so they release from the Feeder frame, and remove the Weight Arm.
4. Remove the KL clip securing the Friction Clutch and Stopper to the Retard Shaft (Figure 1), and remove the Clutch and the Stopper.
5. Disconnect P/J 702 from the Envelope PWB.
6. Remove the Feed Sensor wire harness from the harness clips running from the PWB to the top of the Upper Cover.
7. Remove the four screws securing the Upper Cover to the Feeder frame.
8. Remove the Upper Cover.
9. Disconnect P/J 702 from the Feed Sensor.
10. Remove the screws securing the Paper Guides and remove the Guides.
11. Pry the two Pinch Rolls and the Retard Assembly out of the slots in the Upper Cover (Figure 2).

Replacement

1. Reinstall the Pinch Rolls and Retard Assembly into the slots in the Upper Cover (Figure 2).
2. Reinstall the Paper Guides and use three screws to secure them to the Feeder frame.
3. Reconnect P/J 702 to the Feeder Sensor.
4. Reinstall the Upper Cover onto the Feeder frame by first sliding the Retard Shaft through the hole in the side of the frame.
5. Lower the Cover onto the frame, and use four screws to secure it to the Frame.
6. Reinstall the Feed Sensor wire harness under the clips on top of the Upper Cover.
7. Reconnect P/J 702 to the Envelope PWB.
8. Slide the Clutch Stopper and Friction Clutch onto the Retard Shaft.
9. Make sure the notch on the Stopper is trapped by the plastic lip of the Retard Holder.
10. Use a KL clip to secure the Clutch and Stopper.
11. Reinstall the Weight Arm to the Feeder frame.
12. Reinstall the Center Bracket Assembly (RRP 5.6).
13. Reinstall the Front Cover (RRP 5.4).

RRP 5.16 Feed Sensor (PL16.3)



SER253F

SER253F

RRP 5.16 Feed Sensor (PL16.3)

Removal

1. Remove the Upper Cover (RRP 5.15).
2. Remove the wire harness from the wire clips.
3. Disconnect P/J 132 from the Sensor.
4. Squeeze the Sensor latches while pulling the Sensor away from the frame, and remove the Sensor.

Replacement

1. Position the Sensor so the faces up.
2. Press the Sensor latches into the holes in the frame.

The latches snap into place.

3. Reconnect P/J132 to the Sensor.
4. Reinstall the wire harness into the wire clips.
5. Reinstall the Upper Cover (RRP 5.15).

Section 6 - Locating P/J Connectors

Use the table and map in this section to locate specific P/J connectors within the Envelope Feeder.

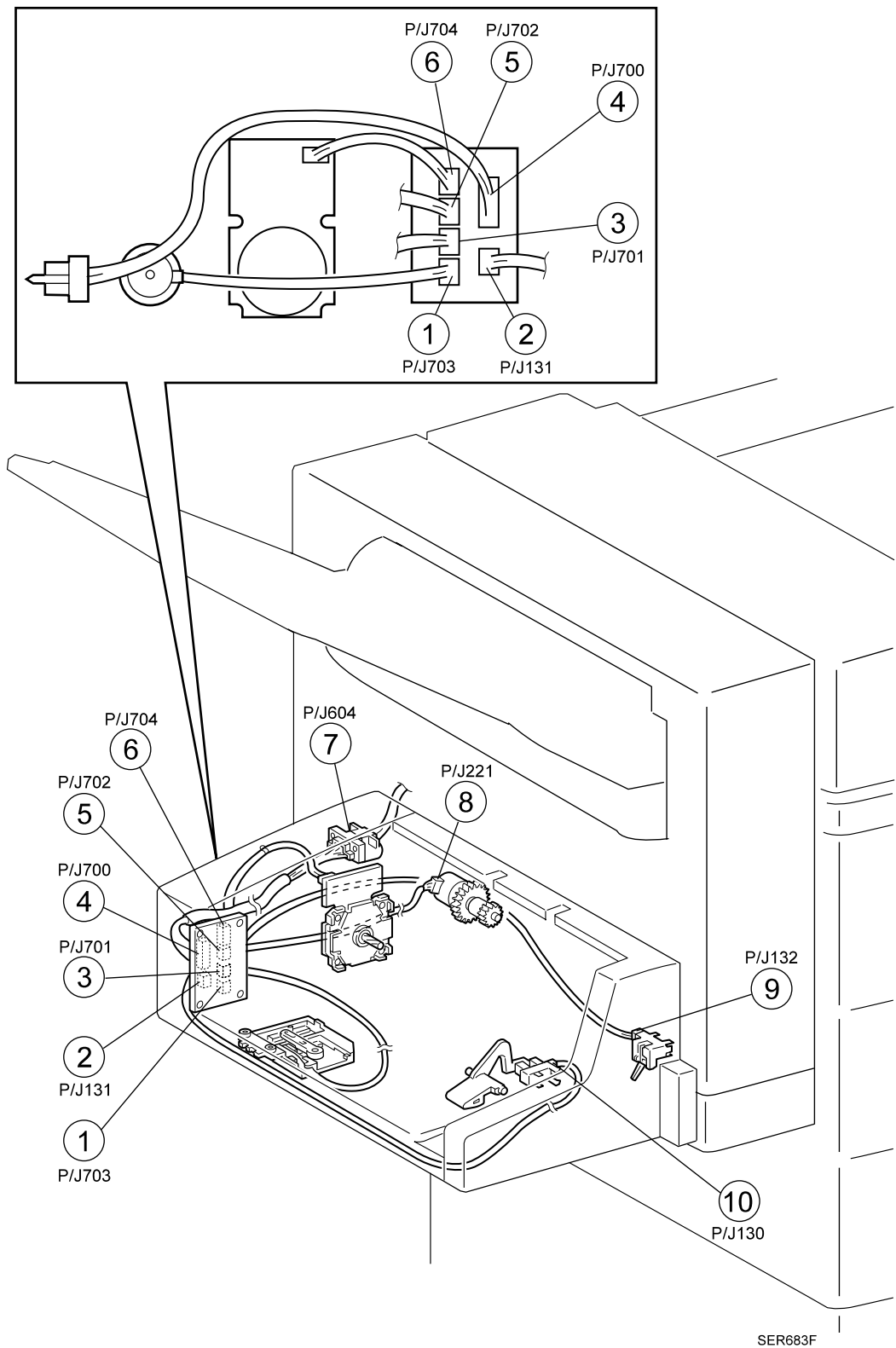
To find the location of a P/J:

1. Locate the P/J connector number in the first column of the table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. Go to the map (M1) number and locate item number (5).

P/J Location Table

P/J	Map & Number	Connected to...	Other end connected to...
130	M1-10	No Paper Sensor	P/J701 Envelope Feeder PWB
131	M1-2	Size Sensor	Envelope Feeder PWB
132	M1-9	Feed Sensor	P/J702 Envelope Feeder PWB
221	M1-8	Feed Clutch	P/J703 Envelope Feeder PWB
604	M1-7	MCU PWB	P/J700 Envelope Feeder PWB
700	M1-4	Envelope Feeder PWB	P604 MCU PWB
701	M1-3	Envelope Feeder PWB	P/J130 No Paper Sensor
702	M1-5	Envelope Feeder PWB	P/J132 Feed Sensor
703	M1-1	Envelope Feeder PWB	P/J221 Feed Clutch
704	M1-6	Envelope Feeder PWB	P/J217 Envelope Motor

P/J Location Map 1

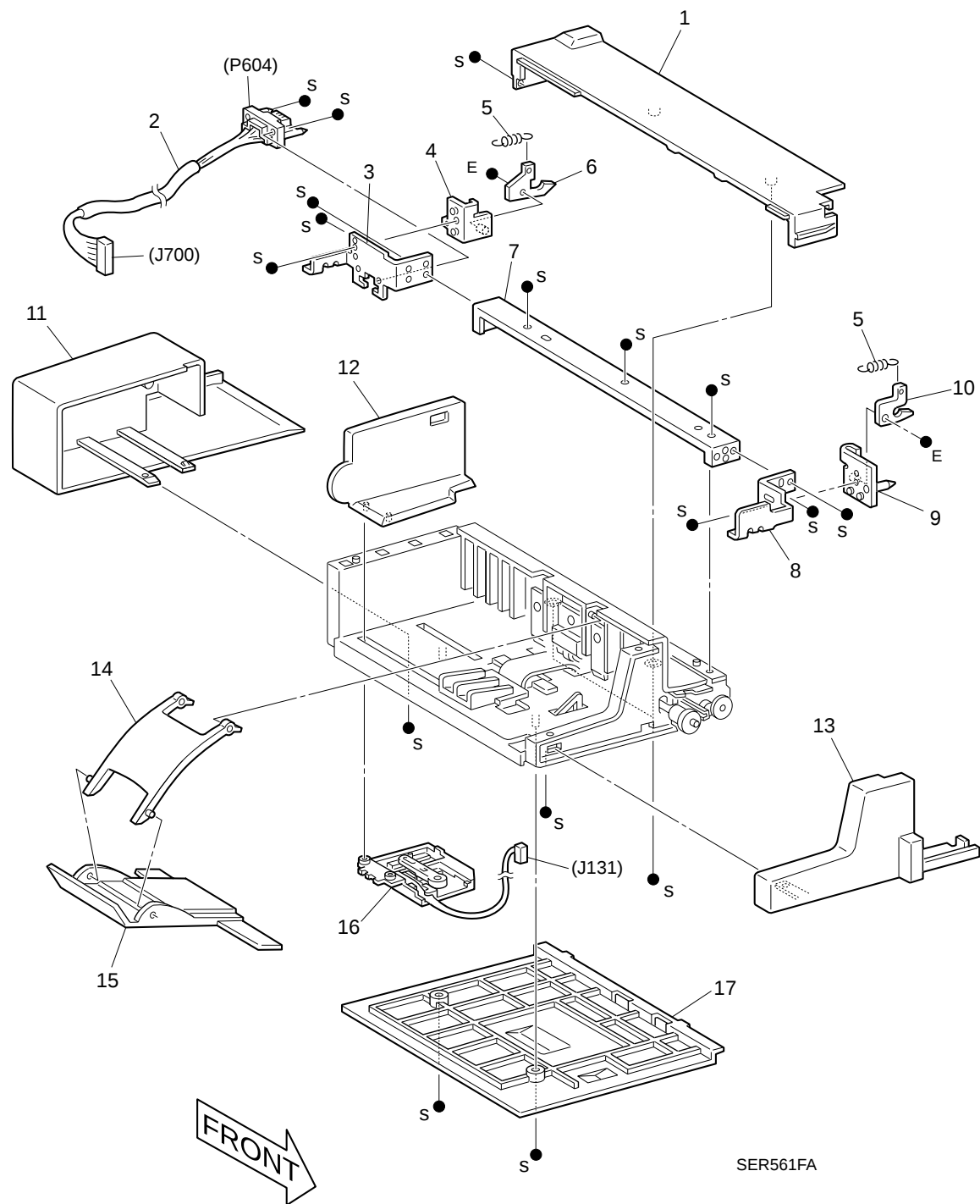


Section 7 - PL16 Envelope Feeder Parts List

Using the Parts List

1. The numbers shown in each illustration correspond to the parts list number for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL3.12 means the part is item 12 of parts list 3.
3. The capital letters “C”, “E”, “KL”, and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle in an illustration indicates the item is part of an assembly.
5. The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.
6. The symbol \$ following a part name indicates the part is an FX Recommended Part and is constantly stocked and readily available. Other parts may be stocked according to the needs of each individual OEM client.
7. An asterisk * following a part name indicates the page contains a note about this part.
8. The notation “**J1<>J2 and P2**” is attached to a wire harness. It indicates that connector jack 1 is attached to one end of the wire harness and connector jack 2 is attached to the other end that is plugged into plug 2.
9. An RRP number appears at the end of a part line if the technical manual contains a removal and replacement procedure for that part or module.

PL16.1 Envelope Feeder 1

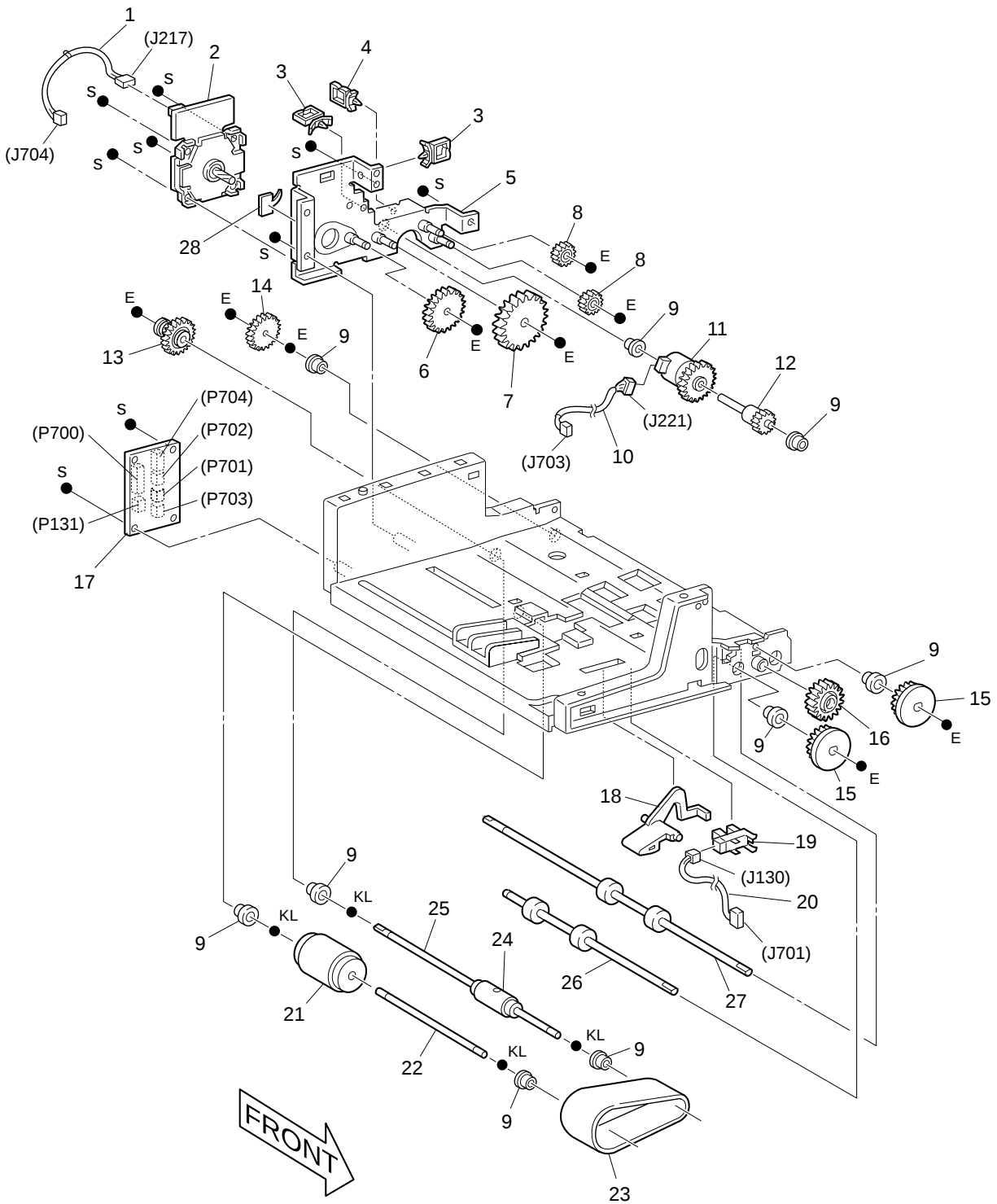


SER561FA

PL16.1 Envelope Feeder 1

1. COVER TOP	P/N 865048E54590
2. HARNESS I/F (J700 < > P604).....	P/N 865162K37420
3. BRACKET REAR	N/A
4. LATCH ASSEMBLY REAR	N/A
5. SPRING LATCH	P/N 865162K37420
6. LATCH REAR	P/N 865003E35350
7. BRACKET CENTER	N/A
8. BRACKET FRONT	N/A
9. LATCH ASSEMBLY FRONT.....	N/A
10. LATCH FRONT	P/N 865003E35360
11. COVER REAR	P/N 865048K74530
12. GUIDE SIDE	P/N 865038K83930
13. COVER FRONT	P/N 865PQ160113
14. ARM WEIGHT	P/N 865031E92970
15. WEIGHT PAPER L	P/N 865036K91380
16. SENSOR ASSEMBLY MSI (J131).....	N/A
17. COVER BOTTOM	P/N 865048E54570

PL16.2 Envelope Feeder 2



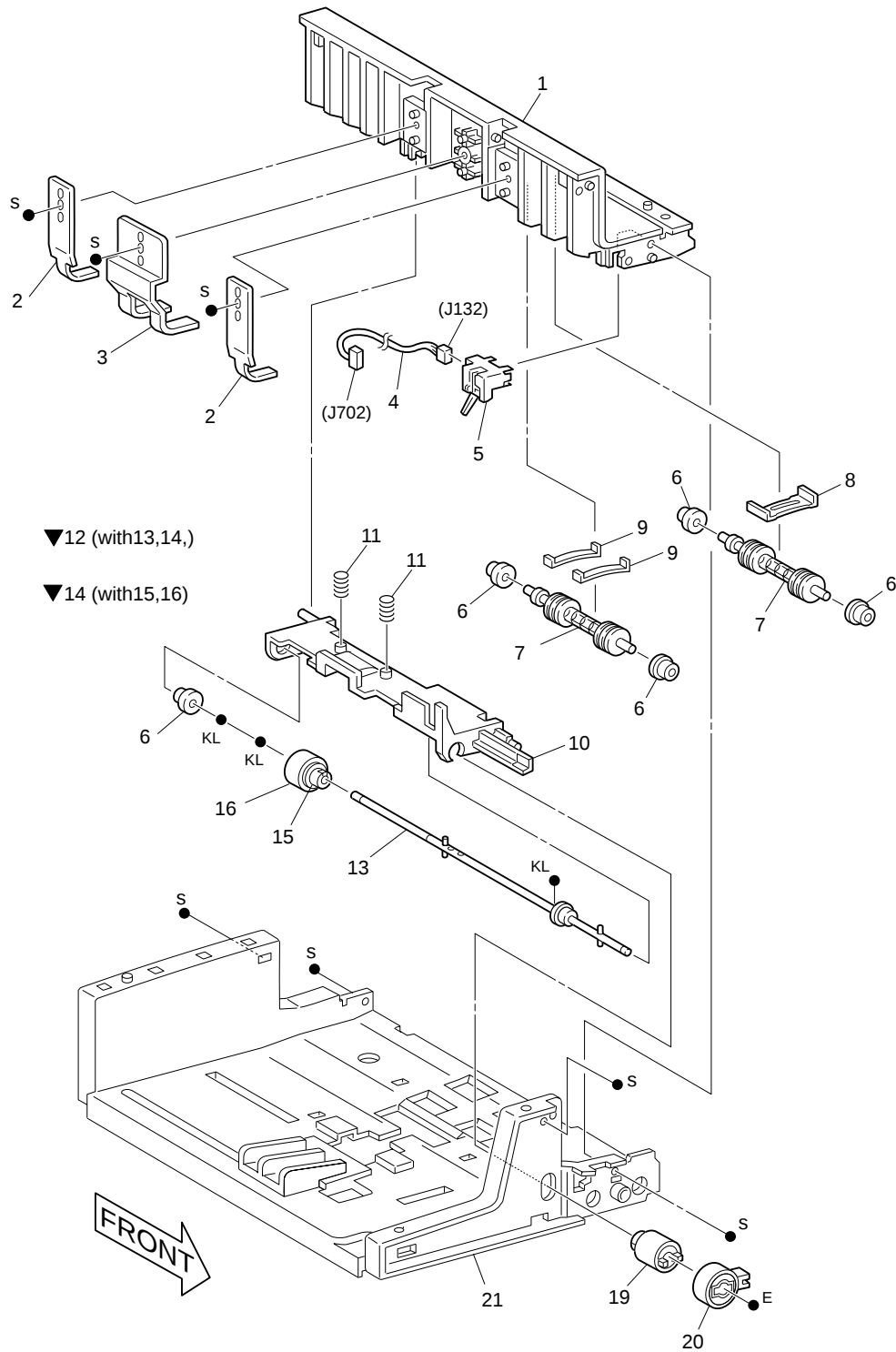
SER562FB

SER562FB

PL16.2 Envelope Feeder 2

1. MOTOR HARNESS DC (J217 <> J704)	N/A
2. MOTOR ENVELOPE B.....	P/N 865127K21850
3. CLAMP 1.....	N/A
4. CLAMP 2.....	N/A
5. BRACKET MOTOR	N/A
6. GEAR Z47	N/A
7. GEAR Z56/18	N/A
8. GEAR IDLER (19)	N/A
9. BEARING FEEDER.....	P/N 865013E82680
10. HARNESS CLUTCH (J221 <> J703).....	N/A
11. CLUTCH ELECTROMAGNETIC	P/N 865121K87190
12. GEAR Z17	N/A
13. CL - SPRING.....	P/N 865121K16450
14. GEAR Z25	N/A
15. GEAR Z25 STOPPER	N/A
16. IDLER GEAR.....	N/A
17. PWBA ENVELOPE	P/N 865160K46160
18. ACTUATOR NO PAPER	P/N 865120E12900
19. SENSOR PI DH.....	P/N 865130E82530
20. HARNESS NO PAPER SENSOR (J130 <> J701).....	N/A
21. CORE BELT	P/N 865022E19170
22. SHAFT FEED	N/A
23. BELT FEED.....	P/N 865023E15580
24. ROLL BOTTOM	P/N 865022K49870
25. SHAFT BOTTOM	N/A
26. ROLL ASSEMBLY TAKEAWAY	P/N 865022K48570
27. ROLL ASSEMBLY TRANSPORT.....	P/N 865022K49860
28. CLAMP 3.....	N/A

PL16.3 Envelope Feeder 3



SER563FA

SER563FA

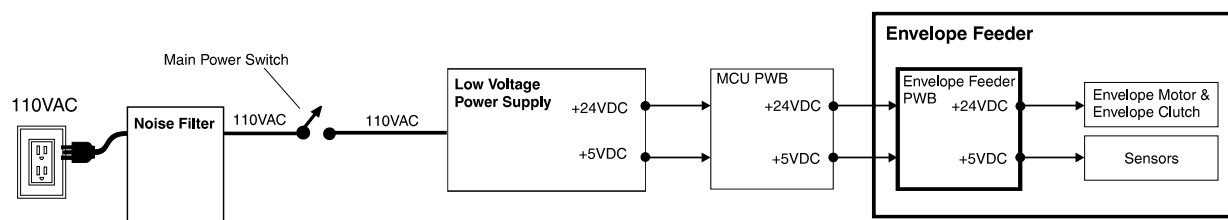
PL16.3 Envelope Feeder 3

1. COVER UPPER	P/N 865048K74520
2. GUIDE PAPER 1	N/A
3. GUIDE PAPER	N/A
4. HARNESS PP SENSOR (J132 < > J702)	N/A
5. SENSOR	P/N 865130E83280
6. BEARING FEEDER.....	N/A
7. ROLL PINCH	P/N 865059E90750
8. SPRING PLATE	N/A
9. SPRING PLATE	N/A
10. HOLDER RETARD.....	N/A
11. SPRING RETARD.....	P/N 865809E07920
12. ROLL ASSEMBLY RETARD (with 13 and14).....	P/N 865022K49880
13. SHAFT RETARD.....	N/A
14. ROLL ASSEMBLY RETARD (with 15 and 16).....	N/A
15. CORE RETARD	N/A
16. ROLL RETARD	N/A
17. N/A	
18. N/A	
19. CLUTCH ASSEMBLY - FRICTION.....	N/A
20. STOPPER - CLUTCH (with 19)	P/N 865121K16460
21. FRAME - MAIN.....	N/A

1- Envelope Feeder Power

The base engine MCU PWB provides the +5VDC and +24VDC that the Envelope Feeder requires for operation.

The printer AC power cord plugs into a grounded AC wall outlet. The cord transmits AC line voltage to the Noise Filter PWB. The Noise Filter smooths the AC voltage and sends it to the Main Power Switch. Switching on the Main Power Switch applies AC voltage to the Low Voltage Power Supply (LVPS) PWB. The LVPS converts the 110VAC to regulated +5VDC and +24VDC voltages. The LVPS sends these voltages to the MCU PWB. The MCU sends these two DC voltages to the **Envelope Feeder PWB**. The Envelope Feeder PWB uses these voltages to run internal logic, sensors, clutches, and the Envelope Feeder Motor.

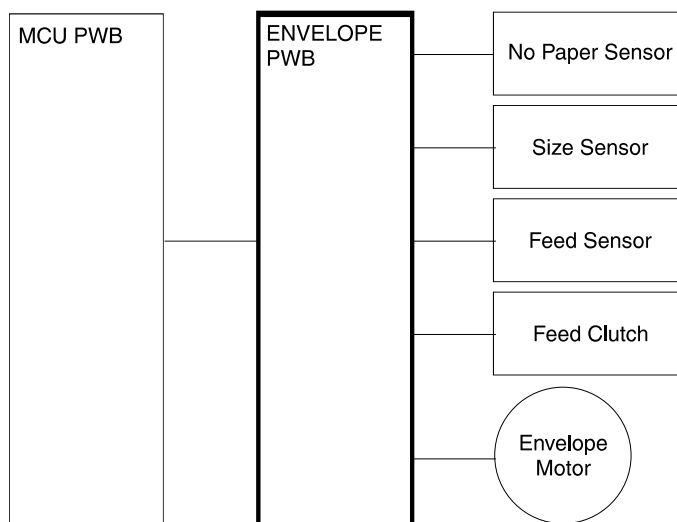


SR1355X

2- Envelope Feeder Control

Envelope Feeder Control is a broad term that is used to describe the printer resources that monitor and control the actions and operations of the printer and the Envelope Feeder; from envelope feed to Envelope Feeder error detection.

The center of Envelope Feeder control is the Envelope PWB. The MCU PWB provides the logic and information processing that is necessary for the printer to function, and the Envelope PWB provides the logic and information processing that is necessary for the Envelope Feeder to function. Every electrical component within the Envelope is connected to the Envelope PWB. Sensors in the Envelope Feeder send status information to the Envelope PWB. The Envelope PWB processes that information, shares it with the MCU PWB, and compares it to timing tables stored in ROM. Acting on the results of the processing, the Envelope PWB sends commands to the various Envelope Feeder components; switching on the Motor or switching off the clutch.



SR1401X

Envelope Feeder Control Components

1. Envelope Feeder PWB

The Envelope Feeder PWB controls all Envelope Feeder functions, executes commands sent by the MCU PWB, and sends information back to the MCU PWB.

2. No Paper Sensor

Monitors the envelope level in the Envelope tray.

3. Size Sensor

Monitors the envelope size loaded in the Envelope tray.

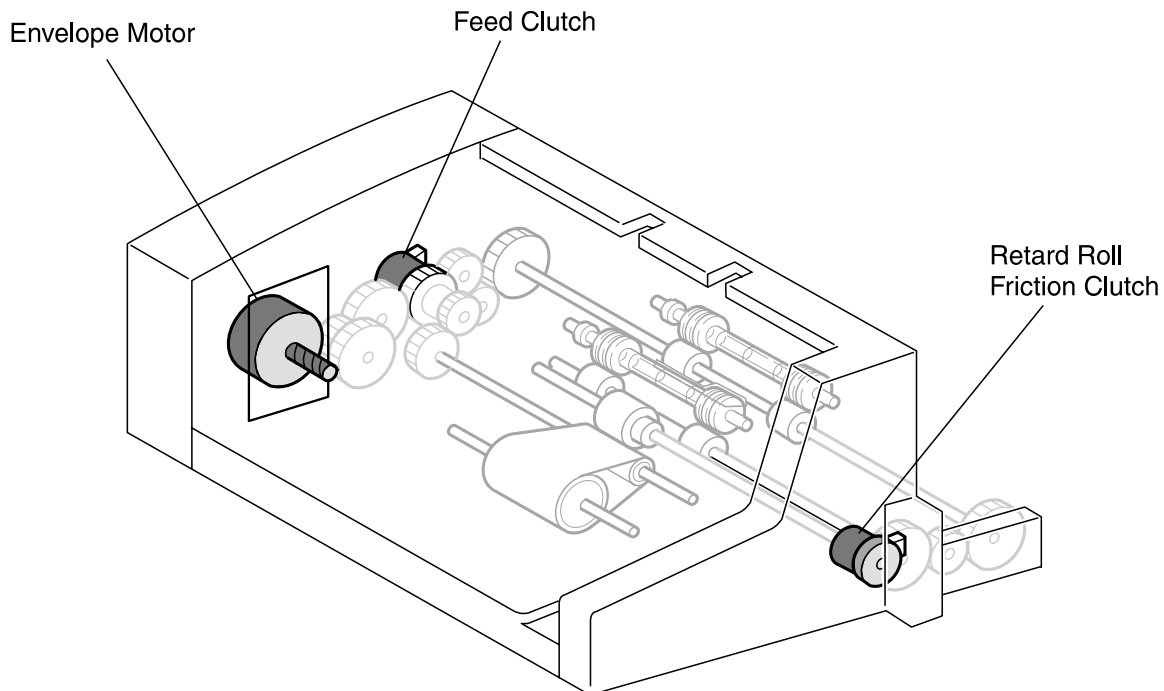
4. Feed Sensor

Monitors envelope travel out of the Envelope Feeder.

3- Mechanical Drive

Mechanical Drive is a term that is used to describe both the rotation of the Envelope Motor and the action of the gears, belts, and clutches that are used to transmit and control motor rotation to the various components throughout the Envelope. The primary purpose of Mechanical Drive within the Envelope Feeder is to provide the mechanical energy to drive a single envelope out of the Envelope tray and into the printer registration area.

The Envelope PWB switches on the Envelope Motor. Gears Z47 and Z56/18 transmit motor drive to the Feed Clutch. When the Envelope PWB actuates the Feed Clutch, the Clutch transmits motor drive to all of the envelope feed and transport assemblies. A friction clutch transmits motor drive to the Retard Roll.



SR1411X

Envelope Feeder Mechanical Drive Components

1. Envelope Motor

A 24VDC motor.

2. Feed Clutch

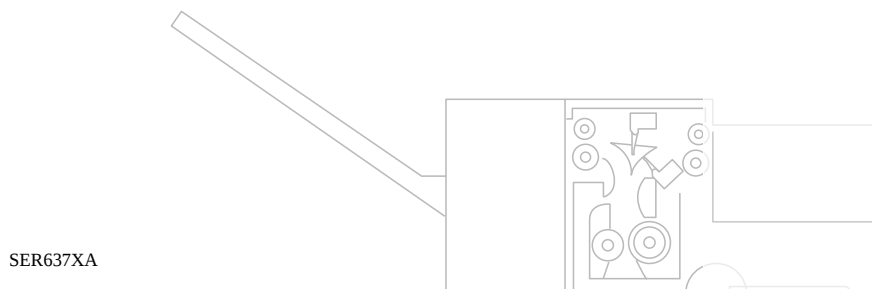
An electric clutch that is controlled by the Envelope Feeder PWB. When actuated, the Feed Clutch transmits Envelope Motor drive to the Envelope Feeder feed and transport assemblies.

3. Retard Roll Friction Clutch

Transmits motor drive to the Retard Roll.

4 - The Envelope Feeder Paper Path

The Envelope Feeder Paper Path is the physical route that an envelope takes through the Envelope Feeder during a print cycle. The Feed Belt and Retard Roll feed a single envelope out of the stack and into the Take Away Roll. The Take Away Roll drives the envelope into the Transport Roll. The Transport Roll drives the envelope out of the Envelope Feeder and into the printer Registration Roll.



Envelope Feeder Paper Path Components

1. Weight Arm

Presses the stack of envelopes against the Feed Belt

2. Feed Belt

Feeds an envelope off of the stack and into the Take Away Roll.

3. Retard Roll

Prevents multiple envelope feed

4. Take Away Roll & Pinch Roll

Continues to drive the envelope out of the feed area and into the Transport Roll.

5. Transport Roll & Pinch Roll

Drives the envelope out of the Envelope Feeder and into the printer Registration Roll.

Section 9 - Wiring Diagrams and Signal Information

This section of the manual contains individual block diagrams (BD) to better illustrate the electrical relationships between components and assemblies within the Envelope Feeder. Each wire in the diagrams is tagged with a signal name, and each wire is terminated at both ends with a pin number.

Wiring Diagram Notations

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the printer.

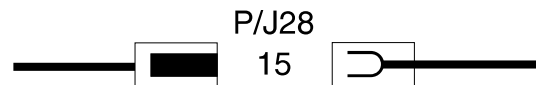
A PLUG



A JACK



CONNECTION OF PIN 15 OF CONNECTORS P28 AND J28.



THE SIGNAL NAME OF A WIRE



THE VOLTAGE MEASURED WITH THE NEGATIVE PROBE OF THE METER ON SG



THE VOLTAGE VALUE OF A SIGNAL



/ = The voltage goes LOW when the signal is ON.

SR1400X

In this case, the HEAT signal is ON, so the normal voltage of 4.2VDC drops to 0VDC.

SGSIGNAL GROUND

FGFRAME GROUND

RTNRETURN

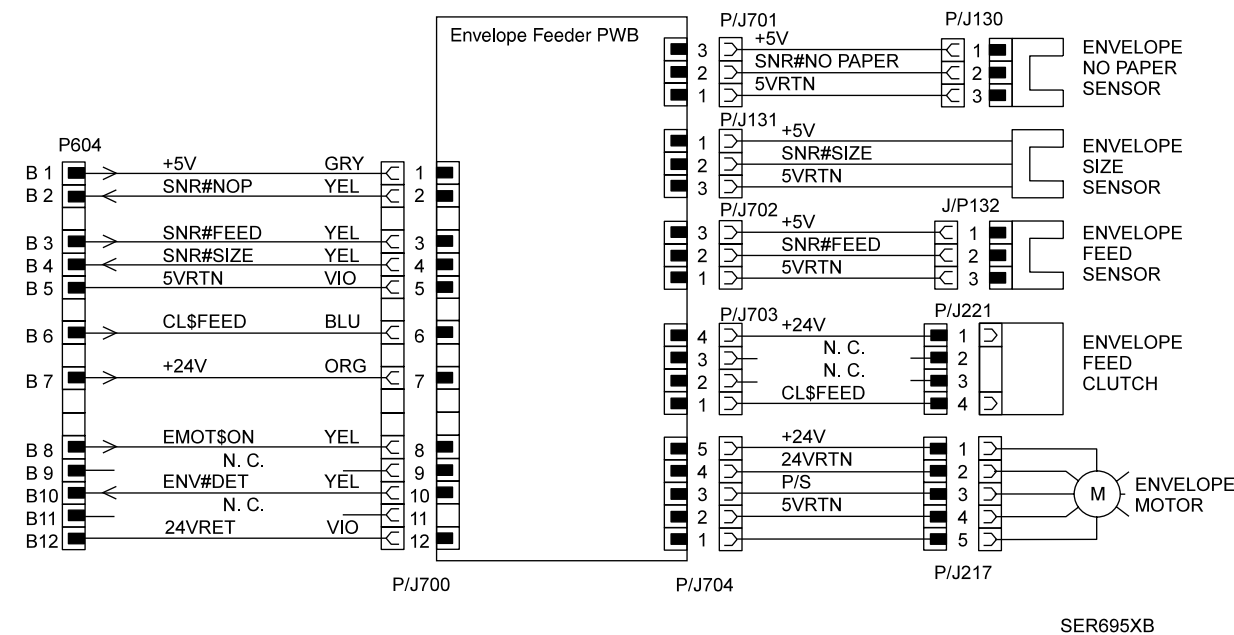
There is continuity between SG and RTN. Continuity between FG and SG depends on circuit specifications.

TTLTTL displayed in the HIGH level or LOW level columns of the signal tables indicate the signal is ECL_CMOS compatible.

HIGH is 4 to 5 VDC

LOW is 0 to 0.8 VDC

BD1 Envelope Feeder Components'Envelope Feeder PWB'MCU PWB



SER695XB

BD1 Envelope Feeder Components' Envelope Feeder PWB' MCU PWB

The following table shows the signal names for the Envelope Feeder components, through the Envelope Feeder PWB, and to the MCU PWB.

Signal Name	Description
SNR#SIZE	Analog signal from the Envelope Size Sensor. Voltage levels 0VDC~5VDC
SNR#NOP	Monitors level of paper in the Envelope Feeder. High=No paper present. Low=Paper present
CLS\$FEED	Switches Envelope Feed Clutch. Low=Feed
ENV#DET	Monitors presence of Envelope Feeder. High=Envelope Feed not present. Low=Envelope Feeder present
EMOT\$ON	Switches Envelope Feed Motor. High=Off. Low=On
SNR#FEED	Monitors paper between Envelope Feeder and base engine. High=Paper present. Low=No paper present

Section 10 - Envelope Feeder Specifications

General Specifications

Category	Specification
Configuration	Customer installed option. The Envelope Feeder replaces the MSI. The Envelope Feeder attaches to the MSI Support. Paper fed from the Envelope Feeder cannot be duplexed.
Envelope stack capacity	Maximum 100 envelopes. Envelope Feeder is equipped with a No-Paper Sensor.
Power requirements	The Printer provides all of the Envelope Feeder power requirements; +5VDC and +24VDC
Size and weight	Height: 133mm Width: 278mm Depth: 444mm Weight: 3.0kg

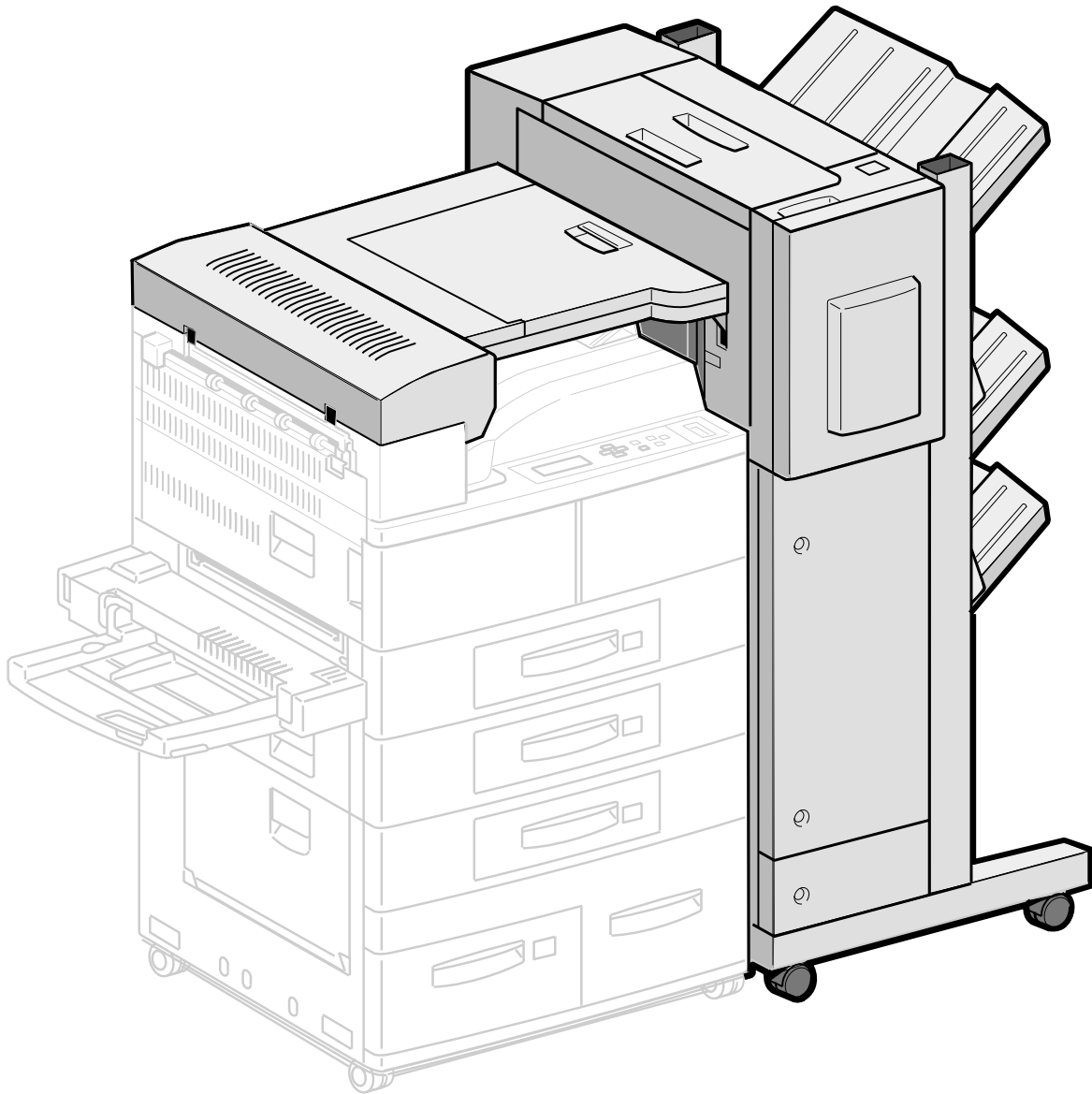
Envelope Sizes Recommended for use with the Envelope Feeder

Brand and size
Monroe Brand COM #10 - 104.8mm x 241.3mm
Monroe Brand Monarch - 98.4mm x 190.5mm
C5 - 162mm x 220mm
DL - 110mm x 220mm

Envelope Feeder Components that Need Periodic Replacement

Component	Replace at ...
Feed Roll	As needed
Feed Belt	As needed

3260/4032 Laser Printer High Capacity Stacker Technical Manual



SR1480X

MINOLTA-QMS, Inc.

About this Manual	HCS-7
1. The Fault Isolation Procedure (FIP) Flowchart	HCS-9
2. Primary FIPs: Error Codes	HCS-12
2.1 Error Code F4-11	HCS-12
2.2 Error Code F4-12	HCS-14
2.3 Error Code F4-13	HCS-16
2.4 Error Code F4-16	HCS-17
2.5 Error Code F4-21	HCS-18
2.6 Error Code F4-22	HCS-20
2.7 Error Code F4-23	HCS-22
2.8 Error Code F4-26	HCS-23
2.9 Error Code F4-31	HCS-24
2.10 Error Code F4-32	HCS-26
2.11 Error Code F4-36	HCS-28
2.12 Error Code F4-41	HCS-29
2.13 Error Code F4-46	HCS-30
2.14 Error Code F6-1	HCS-31
2.15 Error Code F6-2	HCS-32
2.16 Error Code F7-1	HCS-33
2.17 Error Code F7-2	HCS-34
2.18 Error Code F7-3	HCS-35
2.19 Error Code F7-4	HCS-36
2.20 Error Code F8-1	HCS-37
2.21 Error Code H5-11	HCS-38
2.22 Error Code H5-12	HCS-39
2.23 Error Code H5-13	HCS-40
2.24 Error Code H5-21	HCS-41
2.25 Error Code H5-22	HCS-42
2.26 Error Code H5-23	HCS-43
2.27 Error Code H5-31	HCS-44
2.28 Error Code H5-32	HCS-45
2.29 Error Code H5-33	HCS-46
2.30 Error Code H5-81	HCS-47
2.31 Error Code H5-82	HCS-48
2.32 Error Code H5-83	HCS-50
2.33 Error Code H5-84	HCS-51
2.34 Error Code H5-85	HCS-52
2.35 Error Code H5-86	HCS-53
2.36 Error Code H5-91	HCS-54

2.37 Error Code H5-92	HCS-55
2.38 Error Code H5-93	HCS-56
2.39 Error Code H5-94	HCS-57
2.40 Error Code H5-95	HCS-58
2.41 Error Code H5-96	HCS-59
2.42 Error Code H5-97	HCS-60
3. Primary FIPs: HCS Performance Problems	HCS-61
3.1 Inoperative HCS	HCS-61
3.2 The Printer Does Not See the HCS	HCS-63
4. Secondary FIPs	HCS-64
4.1 Loss of +5VDC	HCS-65
4.2 Loss of +24VDC	HCS-68
5. Running HCS Diagnostics	HCS-71
6. Removal and Replacement Procedures (RRPs)	HCS-81
RRP 6.1 High Capacity Stacker	HCS-82
RRP 6.2 Front Cover Assembly	HCS-84
RRP 6.3 Front Cover Inner Assembly	HCS-86
RRP 6.4 Front Low Cover.	HCS-88
RRP 6.5 L/H Cover.	HCS-90
RRP 6.6 L/H Cover Low.	HCS-92
RRP 6.7 Eject Cover	HCS-94
RRP 6.8 Rear Cover	HCS-96
RRP 6.9 Harness Cover.	HCS-98
RRP 6.10 Add Cover.	HCS-100
RRP 6.11 Finisher PWB Cover and Connector Cover	HCS-102
RRP 6.12 Stacker Upper Limit Switch	HCS-104
RRP 6.13 Stacker Lower Limit Switch.	HCS-106
RRP 6.14 Finisher Interlock Sensor and Actuator	HCS-108
RRP 6.15 Stacker Tray ID Sensor.	HCS-110
RRP 6.16 R/H Rack Cover Assembly.	HCS-112
RRP 6.17 Stacker Elevator Motor.	HCS-114
RRP 6.18 Bottom (Lower) Tray Assembly.	HCS-116
RRP 6.19 Bottom Tray Front Cover	HCS-118
RRP 6.20 Bottom Tray Half and Full Sensors	HCS-120
RRP 6.21 Bottom Tray Lower & Upper Limit Sensors	HCS-122
RRP 6.22 Bottom Tray	HCS-124
RRP 6.23 Bottom Tray Paper Sensor	HCS-126
RRP 6.24 Bottom Tray Safety Sensor.	HCS-128
RRP 6.25 Bottom Tray Motor.	HCS-130
RRP 6.26 Bottom Tray Drive Belts.	HCS-132
RRP 6.27 Middle Tray Assembly	HCS-134
RRP 6.28 Middle Tray Front Cover	HCS-136
RRP 6.29 Middle Tray Half and Full Sensors.	HCS-138
RRP 6.30 Middle Tray Lower & Upper Limit Sensors	HCS-140

RRP 6.31 Middle Tray	HCS-142
RRP 6.32 Middle Tray Paper Sensor	HCS-144
RRP 6.33 Middle Tray Motor	HCS-146
RRP 6.34 Middle Tray Drive Belts	HCS-148
RRP 6.35 Middle Tray Safety Switch	HCS-150
RRP 6.36 Top Tray Assembly	HCS-152
RRP 6.37 Top Tray Front Cover	HCS-154
RRP 6.38 Top Tray Half and Full Sensors	HCS-156
RRP 6.39 Top Tray Lower & Upper Limit Sensors	HCS-158
RRP 6.40 Top Tray	HCS-160
RRP 6.41 Top Tray Paper Sensor	HCS-162
RRP 6.42 Top Tray Motor	HCS-164
RRP 6.43 Top Tray Drive Belts	HCS-166
RRP 6.44 Top Tray Safety Switch	HCS-168
RRP 6.45 Tamper Motor	HCS-170
RRP 6.46 Tamper Home Sensor	HCS-172
RRP 6.47 Compiler Paper Sensor	HCS-174
RRP 6.48 End Wall Open Sensor	HCS-176
RRP 6.49 Tamper Motor Drive Belt	HCS-178
RRP 6.50 Compiler Tray Solenoid Assembly	HCS-180
RRP 6.51 Eject Shaft Assemblies	HCS-182
RRP 6.52 Upper Exit Chute Assembly	HCS-184
RRP 6.53 Exit Shaft Assembly	HCS-186
RRP 6.54 Paddle Shaft Assembly	HCS-188
RRP 6.55 Eject Chute Assembly	HCS-190
RRP 6.56 Eject Pinch Roll Shaft Assembly	HCS-192
RRP 6.57 Stack Height Sensor	HCS-194
RRP 6.58 Paddle Drive Belt	HCS-196
RRP 6.59 Stapler Assembly	HCS-198
RRP 6.60 Stapler Position Sensors	HCS-200
RRP 6.61 Stapler Rail Belt	HCS-202
RRP 6.62 Top Cover Assembly	HCS-204
RRP 6.63 Compiler Tray Exit Sensor	HCS-206
RRP 6.64 Upper Transport Chute Assembly	HCS-208
RRP 6.65 Top & Front Cover Interlock Switches	HCS-210
RRP 6.66 Compiler Cover & Safety Interlock Switches	HCS-212
RRP 6.67 Unload While Run Switch	HCS-214
RRP 6.68 End Wall Motor	HCS-216
RRP 6.69 Transport Motor	HCS-218
RRP 6.70 Set Clamp Motor	HCS-220
RRP 6.71 Set Clamp Motor Drive Belt	HCS-222
RRP 6.72 Set Clamp Home Sensor	HCS-224
RRP 6.73 Eject Motor	HCS-226
RRP 6.74 Stapler Transport Motor	HCS-228
RRP 6.75 Stapler Transport Motor Drive Belt	HCS-260

RRP 6.76 Transport Motor Drive Belt	HCS-232
RRP 6.77 Eject Bracket Assembly	HCS-234
RRP 6.78 Eject Clamp Offset Motor	HCS-236
RRP 6.79 Eject Clamp Sensor	HCS-238
RRP 6.80 Offset Home Sensor	HCS-240
RRP 6.81 Finisher PWB Assembly	HCS-242
RRP 6.82 LVPS (OP11/OPR4H)	HCS-244
RRP 6.83 DOC Cover Assembly	HCS-246
RRP 6.84 IN Gate Support Assembly	HCS-248
RRP 6.85 IN Gate Actuator	HCS-250
RRP 6.86 Transport Assembly	HCS-252
RRP 6.87 Transport Assembly Drive Belt	HCS-254
RRP 6.88 IN Gate Interlock Switch	HCS-256
RRP 6.89 IN Gate Solenoid Assembly	HCS-258
RRP 6.90 Roller Unit	HCS-260
RRP 6.91 Transport Cover Assembly	HCS-262
RRP 6.92 Transport Interlock Sensor	HCS-264
RRP 6.93 Transport Roll	HCS-266
RRP 6.94 Transport Entrance Sensor	HCS-268
RRP 6.95 IOT Paper Full Sensor	HCS-270
RRP 6.96 Transport Exit Sensor	HCS-272
7. Locating P/J Connectors	HCS-275
8. PL17 ~ 22 Parts List	HCS-295
9. Principles of Operation	HCS-347
10. Wiring Diagrams and Signal Information	HCS-381
11. HCS Specifications	HCS-403

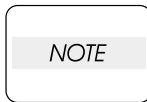
About this Manual

This manual contains technical and service information for the QMS 3260/4032 High Capacity Stacker. The information is based on and validated using the basic model printer High Capacity Stacker option. Expect some minor discrepancies in physical appearance, hardware count, and electrical readings due to engineering modifications and manufacturing changes during the life of the product.

This manual is prepared for use in the United States by MINOLTA-QMS. This manual is copyrighted. No portion may be copied, reproduced, submitted to, or read by MINOLTA-QMS, Inc. external customers without the prior consent of MINOLTA-QMS, Inc.

Symbols Used in This Manual

Various symbols are used throughout this manual to either provide additional information on a specific topic, or to warn of possible danger present during a procedure or action. Be aware of all symbols when they are used, and always read NOTE, CAUTION, or WARNING messages.



A Note may indicate an operating or maintenance procedure, practice, or condition that is necessary to accomplish a task efficiently. A Note may also provide additional information that is related to a specific subject, or the results achieved through a previous action.



A Caution indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in damage to, or destruction of, equipment.



A Warning indicates an operating or maintenance procedure, practice, or condition that, if not strictly observed, could result in injury or loss of life.

Section 1 - The Fault Isolation Procedure (FIP) Flowchart

How to Use the FIP Flowchart

1. If you have an error code displayed on the printer Control Panel LCD; go to the **ERROR CODE** box.
2. If you have a HCS operation problem; go to the **HCS PERFORMANCE** box.
3. Follow the arrow leading from your problem box to the individual FIP (Fault Isolation Procedure) that corresponds to your error code or High Capacity Stacker operation problem.
4. Follow the instructions presented in the FIP.
5. If a FIP instructs you to preform a diagnostic test, refer to Section 8 *Running HCS Diagnostics*.
6. Primary FIPs may direct you to a Secondary FIP. In the FIP Flowchart, the relationship between Primary and Secondary FIPs is represented with dotted lines

How to Follow a FIP

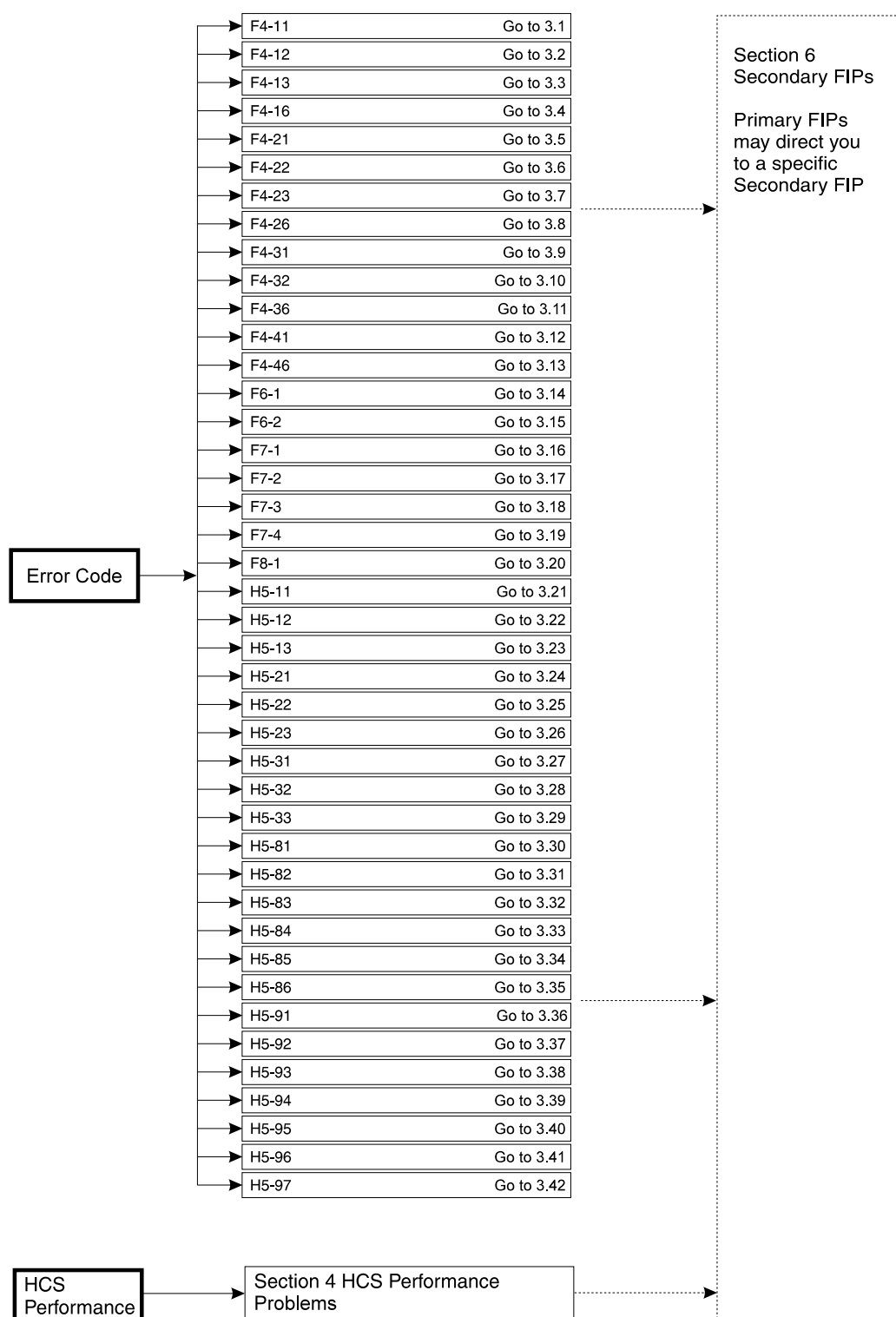
1. Each numbered step in a FIP instructs you to perform a certain action or procedure.
2. The instruction is followed by a question.
3. If your response to the question is **Yes**, then follow the instructions for a Yes reply.
4. If your response to the question is **No**, then follow the instructions for a No reply.
5. FIPs often ask you to replace a component.

Refer to Removal/Replacement provides to find detailed procedures for removing and replacing all major parts of the HCS.

2	500 SIZE SWITCH SIGNAL (FULL) 1. Install a full Paper Cassette into the Feeder. 2. Check the voltage between J302-1 and J302-2. J302  EMPTY = +0.45 VDC LETTER SEF = +2.19 VDC A4 SEF = +2.82 VDC ENVELOPE = +2.62 VDC LEGAL 13" = +2.4 VDC LEGAL 14" = +3.08 VDC Is the voltage between J302-1 and J302-2 at a level that corresponds to the paper size that is loaded in the Cassette?	Go to step 3	Replace the 500 Sheet Size Switch RRP 1.5
---	--	--------------	---

- Step number
- Action with substeps, additional information, and a question.
- Action to take if the answer to the question is YES
- Action to take if the answer to the question is NO

FIP Flowchart



SR1481X

2.1 Error Code F4-11

There is a paper jam at or after the Transport Entrance Sensor.

Logic Control on the MCU PWB sensed that the Transport Entrance Sensor did not deactuate within the specified time after the Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Transport Cover and inspect the paper path for paper scraps that may cause a paper jam. Is the Transport area free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRANSPORT INSPECTION Inspect the position of the jammed paper in the Transport. Did the trailing edge of the paper travel pass the Transport Entrance Sensor?	Go to step 3	Go to step 5
3	TRANSPORT ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-1. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Transport Entrance Sensor (RRP 6.94)
4	Replace the Finisher PWB (RRP 6.81) Does the F4-11 error code appear?	Replace the MCU PWB (RRP 9.6)	Problem solved
5	TRANSPORT DRIVE TEST 1. Remove the two screws securing the Transport Rear Cover and remove the Cover. (RRP 6.86). 2. Remove the HCS Rear Cover (RRP 6.8). 3. Enter Diagnostic Mode - Output 14-52 to check the Transport Motor. Does the Transport Motor run?	Go to step 6	Replace the Transport Motor (RRP 6.69)

2.1 Error Code F4-11 continued

Step	Actions and Questions	Yes	No
6	TRANSPORT DRIVE GEAR INSPECTION With the Transport Motor running, inspect the Gears that transmit Motor drive to the Transport Assembly Drive Belt. Do the Transport Gears rotate smoothly and transmit drive to the Transport Assembly?	Go to step 7	Replace the gear clusters
7	TRANSPORT ASSEMBLY DRIVE BELT INSPECTION With the Transport Motor running, inspect the Transport Assembly Drive Belt. Does the Transport Assembly Drive Belt run smoothly, without binding or skipping?	Go to step 8	Replace the Transport Assembly Drive Belt (RRP 6.87)
8	TRANSPORT ROLL INSPECTION Inspect the Transport Rolls and Pinch Rolls. Are the Transport Rolls and Pinch Rolls clean, not broken, and free of obvious wear?	Replace the Transport Cover Assembly (RRP 6.91)	Replace the Transport Rolls (RRP 6.93)

2.2 Error Code F4-12

There is a paper jam between the Fuser Exit Sensor and the Transport Entrance Sensor.

Logic Control on the MCU PWB sensed that the Transport Entrance Sensor did not actuate within the specified time after the Fuser Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	TRANSPORT INSPECTION Open the Transport Cover and inspect the position of the jammed paper in the Transport. Did the leading edge of the paper reach the Transport Entrance Sensor?	Go to step 2	Go to step 4
2	TRANSPORT ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-1. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 3	Replace the Transport Entrance Sensor (RRP 6.94)
3	Replace the Finisher PWB (RRP 6.81) Does the F4-12 error code appear?	Replace the MCU PWB (RRP 9.6)	Problem solved
4	PAPER TRAVEL INSPECTION Pull the Transport Assembly a few inches away from the DOC Assembly and inspect the position of the jammed paper. Did the leading edge of the paper exit the Fuser Exit area?	Go to step 5	Go the Base Engine Technical Manual and troubleshoot for a possible Fuser Exit jamming problem.
5	IN GATE SOLENOID TEST 1. Reattach the Transport Assembly to the DOC Assembly. 2. Enter Diagnostic Mode - Output 14-50 to check IN Gate Solenoid open. 3. Enter Diagnostic Mode - Output 14-51 to check IN Gate Solenoid close. Does the IN Gate Solenoid open and close when you run tests 14-50 and 14-51?	Go to step 6	Replace the IN Gate Solenoid (RRP 6.89)

2.2 Error Code F4-12 continued

Step	Actions and Questions	Yes	No
6	IN GATE INSPECTION While running step 5, inspect the IN Gate. Does the IN Gate Actuator raise and lower raise and lower the IN Gate as you toggle between 14-50 and 14-51?	Go to step 7	Replace the IN Gate Lever and Spring (RRP 6.85)
7	Replace the IN Gate Support Assembly (RRP 6.84). . Does F4-12 still occur?	Go to the Base Engine Manual and trouble-shoot the printer Fuser and Offset Units for stalling, slipping, and broken parts	Problem solved

2.3 Error Code F4-13

There is a problem with the Transport Entrance Sensor.

Logic Control on the MCU PWB sensed that the Transport Entrance Sensor was actuated during HCS initialization.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Transport Cover and inspect the paper path for paper scraps that may be actuating the Transport Entrance Sensor. Is the Transport Entrance Sensor free of paper debris?	Go to step 2	Remove the paper that is actuating the Sensor
2	TRANSPORT ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-1. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 3	Replace the Transport Entrance Sensor (RRP 6.94)
3	Replace the Finisher PWB (RRP 6.81) Does the F4-13 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.4 Error Code F4-16

There is a problem with the Transport Entrance Sensor.

Logic Control on the MCU PWB sensed that the Transport Entrance Sensor was on while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Transport Cover and inspect the paper path for paper scraps that may be actuating the Transport Entrance Sensor. Is the Transport Entrance Sensor free of paper scraps?	Go to step 2	Remove the paper that is actuating the Sensor
2	TRANSPORT ENTRANCE SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-1. 2. Insert, then remove, a sheet of paper into the Entrance Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 3	Replace the Transport Entrance Sensor (RRP 6.94)
3	Replace the Finisher PWB (RRP 6.81) Does the F4-16 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.5 Error Code F4-21

There is a problem with the Transport Exit Sensor.

Logic control on the MCU PWB sensed that the Transport Exit Sensor did not deactuate within the specified time after the Transport Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	PAPER PATH INSPECTION Open the Transport Cover and Top Cover and inspect the paper path for paper scraps that may cause a paper jam. Are the Transport and Compiler areas free of paper scraps?	Go to step 2	Remove the paper scraps
2	PAPER TRAVEL INSPECTION 1. Generate a print. 2. When the print is inside the Transport Assembly, open the Transport Cover and inspect the paper position. Is the paper skewed as it enters the Compiler?	Replace the Transport Rolls (RRP 6.93)	Go to step 3
3	TRANSPORT INSPECTION Inspect the position of the jammed paper in the Transport. Did the trailing edge of the paper clear the Transport Exit Sensor?	Go to step 4	Go to step 6
4	TRANSPORT EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-2. 2. Insert, then remove, a sheet of paper into the Exit Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 5	Replace the Transport Exit Sensor (RRP 6.96)
5	Replace the Finisher PWB (RRP 6.81) Does the F4-21 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.5 Error Code F4-21 continued

Step	Actions and Questions	Yes	No
6	COMPILER TRANSPORT ROLL DRIVE TEST 1. Open the Transport Cover. 2. Place a single sheet of paper on top of the Transport Rolls. 3. Enter Diagnostic Mode - Output 14-52. 4. Watch the sheet of paper as it is driven out of the Transport, into the Compiler, and into an HCS tray. Is the sheet of paper driven into the HCS tray?	Repeat the test. If the problem does not reoccur, treat it as an intermittent. If the paper jams, reload fresh paper into the printer or troubleshoot for paper damage along the printer paper path.	Go to step 7
7	TRANSPORT MOTOR DRIVE BELT INSPECTION 1. Remove the two screws securing the Transport Rear Cover and remove the Cover. (RRP 6.86). 2. Remove the HCS Rear Cover (RRP 6.8). 3. Enter Diagnostic Mode - Output 14-52 to check the Transport Motor. 4. With the Transport Motor running, inspect the Transport Motor Drive Belt. Does the Transport Motor Drive Belt run smoothly, without binding or skipping, and does it drive the Compiler Transport Roll?	Go to step 8	Replace the Transport Motor Drive Belt (RRP 6.76)
8	UPPER TRANSPORT CHUTE INSPECTION Open the Top Cover and inspect the Pinch Rolls in the Upper Transport Chute. Are the Pinch Roll clean and undamaged?	Go to step 9	Replace the Upper Chute Assembly (RRP 6.64)
9	EXIT AND PADDLE INSPECTION With the Transport Motor running, inspect the Exit Roll and Paddle Roll Assemblies. Do the Assemblies rotate smoothly and are both Assemblies clean, not damaged, and free of obvious wear?	Inspect the paper path for damage that may be blocking the paper path. Check for paper skewing as it exits the Fuser.	Replace the Exit Shaft Assembly (RRP 6.53) and the Paddle Shaft Assembly (RRP 6.54).

2.6 Error Code F4-22

There is a problem between the Transport Entrance Sensor and the Transport Exit Sensor.

Logic control on the MCU PWB sensed that the Transport Exit Sensor did not actuate within the specified time after the Transport Entrance Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	PAPER PATH INSPECTION Open the Transport Cover and inspect the paper path for paper scraps that may cause a paper jam. Is the Transport area free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRANSPORT INSPECTION Inspect the position of the jammed paper in the Transport. Did the leading edge of the paper reach the Transport Exit Sensor?	Go to step 3	Go to step 5
3	TRANSPORT EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-2. 2. Insert, then remove, a sheet of paper into the Exit Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 4	Replace the Transport Exit Sensor (RRP 6.96)
4	Replace the Finisher PWB (RRP 6.81) Does the F4-22 error code appear?	Replace the MCU PWB (RRP 9.6)	Problem solved
5	TRANSPORT DRIVE TEST 1. Remove the two screws securing the Transport Rear Cover and remove the Cover. (RRP 6.86). 2. Remove the HCS Rear Cover (RRP 6.8). 3. Enter Diagnostic Mode - Output 14-52 to check the Transport Motor. Does the Transport Motor run?	Go to step 6	Replace the Transport Motor (RRP 6.69)

2.6 Error Code F4-22 continued

Step	Actions and Questions	Yes	No
6	TRANSPORT DRIVE GEAR INSPECTION With the Transport Motor running, inspect the Gears that transmit Motor drive to the Transport Assembly Drive Belt. Do the Transport Gears rotate smoothly and transmit drive to the Transport Assembly?	Go to step 7	Replace the gear clusters
7	TRANSPORT ASSEMBLY DRIVE BELT INSPECTION With the Transport Motor running, inspect the Transport Assembly Drive Belt. Does the Transport Assembly Drive Belt run smoothly, without binding or skipping?	Go to step 8	Replace the Transport Assembly Drive Belt (RRP 6.87)
8	TRANSPORT ROLL INSPECTION Inspect the Transport Rolls and Pinch Rolls. Are the Transport Rolls and Pinch Rolls clean, not broken, and free of obvious wear?	Replace the Transport Cover Assembly (RRP 6.91)	Replace the Transport Rolls (RRP 6.93)

2.7 Error Code F4-23

There is a problem at the Transport Exit Sensor.

Logic control on the MCU PWB sensed that during Finisher initialization, the Transport Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Transport Cover and inspect the paper path for paper scraps that may have actuated the Transport Exit Sensor. Is the Transport area free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRANSPORT EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-2. 2. Insert, then remove, a sheet of paper into the Exit Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 3	Replace the Transport Exit Sensor (RRP 6.96)
3	Replace the Finisher PWB (RRP 6.81) Does the F4-23 error code appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.8 Error Code F4-26

There is a problem at the Transport Exit Sensor.

Logic control on the MCU PWB sensed that the Transport Exit Sensor was on while the printer was in standby.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Transport Cover and inspect the paper path for paper scraps that may have actuated the Transport Exit Sensor. Is the Transport area free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRANSPORT EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-2. 2. Insert, then remove, a sheet of paper into the Exit Sensor. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 3	Replace the Transport Exit Sensor (RRP 6.96)
3	Replace the Finisher PWB (RRP 6.81) Does the F4-26 error code appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.9 Error Code F4-31

There is a problem at or near the Compiler Tray Exit Sensor.

Logic control on the MCU PWB sensed that the Compiler Tray Exit Sensor did not deactuate within the specified time after the Compiler Tray Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	PAPER PATH INSPECTION Open the Transport Cover and the Top Cover and inspect the paper path for paper scraps that may cause a paper jam. Are the Transport and Compiler areas free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRANSPORT INSPECTION Open the Top Cover and inspect the position of the jammed paper. Did the trailing edge of the paper clear the Compiler Tray Exit Sensor?	Go to step 3	Go to step 5
3	COMPILER TRAY EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-3. 2. Open the Top Cover. 3. Actuate and deactuate the Compiler Tray Exit Sensor. Does the Control Panel LCD display H when you actuate the Sensor, and does the LCD display L when you do not actuate the Sensor?	Go to step 4	Replace the Compiler Tray Exit Sensor (RRP 6.63)
4	Replace the Finisher PWB (RRP 6.81) Does the F4-31 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.9 Error Code F4-31 continued

Step	Actions and Questions	Yes	No
5	COMPILER TRANSPORT ROLL DRIVE TEST 1. Open the Transport Cover. 2. Place a single sheet of paper on top of the Transport Rolls. 3. Enter Diagnostic Mode - Output 14-52. 4. Watch the sheet of paper as it is driven out of the Transport, into the Compiler, and into an HCS tray. Is the sheet of paper driven into the HCS tray?	Repeat the test. If the problem does not reoccur, treat it as an intermittent. If the paper jams, reload fresh paper into the printer or troubleshoot for paper damage along the printer paper path.	Go to step 6
6	TRANSPORT MOTOR DRIVE BELT INSPECTION 1. Remove the two screws securing the Transport Rear Cover and remove the Cover. (RRP 6.86). 2. Remove the HCS Rear Cover (RRP 6.8). 3. Enter Diagnostic Mode - Output 14-52 to check the Transport Motor. 4. With the Transport Motor running, inspect the Transport Motor Drive Belt. Does the Transport Motor Drive Belt run smoothly, without binding or skipping, and does it drive the Compiler Transport Roll?	Go to step 7	Replace the Transport Motor Drive Belt (RRP 6.76)
7	UPPER TRANSPORT CHUTE INSPECTION Open the Top Cover and inspect the Pinch Rolls in the Upper Transport Chute. Are the Pinch Roll clean and undamaged?	Go to step 8	Replace the Upper Chute Assembly (RRP 6.64)
8	EXIT AND PADDLE INSPECTION With the Transport Motor running, inspect the Exit Roll and Paddle Roll Assemblies. Do the Assemblies rotate smoothly and are both Assemblies clean, not damaged, and free of obvious wear?	Inspect the paper path for damage that may be blocking the paper path. Check for paper skewing as it exits the Fuser.	Replace the Exit Shaft Assembly (RRP 6.53) and the Paddle Shaft Assembly (RRP 6.54).

2.10 Error Code F4-32

There is a problem between the Transport Exit Sensor and the Compiler Tray Exit Sensor.

Logic control on the MCU PWB sensed that the Compiler Tray Exit Sensor did not actuate within the specified time after the Transport Exit Sensor was actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	PAPER PATH INSPECTION Open the Transport Cover and the Top Cover and inspect the paper path for paper scraps that may cause a paper jam. Are the Transport and Compiler areas free of paper scraps?	Go to step 2	Remove the paper scraps
2	TRANSPORT INSPECTION Open the Top Cover and inspect the position of the jammed paper. Did the trailing edge of the paper clear the Compiler Tray Exit Sensor?	Go to step 3	Go to step 5
3	COMPILER TRAY EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-3. 2. Open the Top Cover. 3. Actuate and deactuate the Compiler Tray Exit Sensor. Does the Control Panel LCD display H when you actuate the Sensor, and does the LCD display L when you do not actuate the Sensor?	Go to step 4	Replace the Compiler Tray Exit Sensor (RRP 6.63)
4	Replace the Finisher PWB (RRP 6.81) Does the F4-32 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.10 Error Code F4-32 continued

Step	Actions and Questions	Yes	No
5	COMPILER TRANSPORT ROLL DRIVE TEST 1. Open the Transport Cover. 2. Place a single sheet of paper on top of the Transport Rolls. 3. Enter Diagnostic Mode - Output 14-52. 4. Watch the sheet of paper as it is driven out of the Transport, into the Compiler, and into an HCS tray. Is the sheet of paper driven into the HCS tray?	Repeat the test. If the problem does not reoccur, treat it as an intermittent. If the paper jams, reload fresh paper into the printer or troubleshoot for paper damage along the printer paper path.	Go to step 6
6	TRANSPORT MOTOR DRIVE BELT INSPECTION 1. Remove the two screws securing the Transport Rear Cover and remove the Cover. (RRP 6.86). 2. Remove the HCS Rear Cover (RRP 6.8). 3. Enter Diagnostic Mode - Output 14-52 to check the Transport Motor. 4. With the Transport Motor running, inspect the Transport Motor Drive Belt. Does the Transport Motor Drive Belt run smoothly, without binding or skipping, and does it drive the Compiler Transport Roll?	Go to step 7	Replace the Transport Motor Drive Belt (RRP 6.76)
7	UPPER TRANSPORT CHUTE INSPECTION Open the Top Cover and inspect the Pinch Rolls in the Upper Transport Chute. Are the Pinch Roll clean and undamaged?	Go to step 8	Replace the Upper Chute Assembly (RRP 6.64)
8	EXIT AND PADDLE INSPECTION With the Transport Motor running, inspect the Exit Roll and Paddle Roll Assemblies. Do the Assemblies rotate smoothly and are both Assemblies clean, not damaged, and free of obvious wear?	Inspect the paper path for damage that may be blocking the paper path. Check for paper skewing as it exits the Fuser.	Replace the Exit Shaft Assembly (RRP 6.53) and the Paddle Shaft Assembly (RRP 6.54).

2.11 Error Code F4-36

There is a problem with the Compiler Tray Exit Sensor.

Logic control on the MCU PWB sensed that the Compiler Tray Exit Sensor was on while the printer was in standby

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Top Cover and inspect the paper path for paper scraps that may be actuating the Compiler Tray Exit Sensor. Is the Compiler Tray Exit Sensor free of paper scraps?	Go to step 2	Remove the paper that is actuating the Sensor
2	COMPILER TRAY EXIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-3. 2. Open the Top Cover. 3. Actuate and deactuate the Compiler Tray Exit Sensor. Does the Control Panel LCD display H when you actuate the Sensor, and does the LCD display L when you do not actuate the Sensor?	Go to step 3	Replace the Compiler Tray Exit Sensor (RRP 6.63)
3	Replace the Finisher PWB (RRP 6.81) Does the F4-36 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.12 Error Code F4-41

There is a problem with the Compiler Paper Sensor.

Logic control on the MCU PWB sensed that the Compiler Paper Sensor either did not actuate within the specified time after the Eject Motor - Reverse was switched on, or the Compiler Paper Sensor did not deactuate with the specified time after the Eject Motor - Forward was switched on.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	PAPER PATH INSPECTION Raise the Compiler Cover and inspect the paper path for paper scraps that may cause a paper jam. Is the Compiler area free of paper scraps?	Go to step 2	Remove the paper scraps
2	COMPILER PAPER SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-5. 2. Raise the Compiler Cover. 3. Actuate and deactuate the Compiler Paper Sensor. Does the Control Panel LCD display H when you actuate the Sensor, and does the LCD display L when you do not actuate the Sensor?	Go to step 3	Replace the Compiler Paper Sensor (RRP 6.47)
3	EJECT MOTOR - FORWARD TEST 1. Enter Diagnostic Mode - Output 14-63 to check the Eject Motor in forward rotation. 2. With the Eject Motor running, inspect the Eject Roll. Does the Eject Motor run, and does the Eject Roll rotate?	Go to step 4	Replace the Eject Motor (RRP 6.73)
4	EJECT MOTOR - REVERSE TEST 1. Enter Diagnostic Mode - Output 14-65 to check the Eject Motor in reverse rotation. 2. With the Eject Motor running, inspect the Eject Roll. Does the Eject Motor run, and does the Eject Roll rotate?	Go to step 5	Replace the Eject Motor (RRP 6.73)
5	EJECT ROLL INSPECTION Inspect the Eject Roll. Is the Eject Roll clean, undamaged, and free of obvious wear?	Go to step 6	Replace the Eject Shaft Assemblies (RRP 6.51)
6	Replace the Finisher PWB (RRP 6.81) Does the F4-41 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.13 Error Code F4-46

There is a problem at the Compiler Paper Sensor.

Logic control on the MCU PWB sensed that the Compiler Paper Sensor was on while the printer was in standby

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	PAPER PATH INSPECTION Open the Compiler Cover and inspect the Compiler Tray for paper that may be actuating the Compiler Paper Sensor. Is the Compiler Tray free of paper scraps?	Go to step 2	Remove the paper that is actuating the Sensor
2	COMPILER PAPER SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-5. 2. Raise the Compiler Cover. 3. Actuate and deactuate the Compiler Paper Sensor. Does the Control Panel LCD display H when you actuate the Sensor, and does the LCD display L when you do not actuate the Sensor?	Go to step 3	Replace the Compiler Paper Sensor (RRP 6.47)
3	Replace the Finisher PWB (RRP 6.81) Does the F4-46 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.14 Error Code F6-1

There is a problem at the IN Gate Interlock Switch.

Logic control on the MCU PWB sensed that the Transport is not connected to the DOC Assembly.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	Reposition the Transport to make a better connection with the DOC Assembly. Does the error code F6-1 still appear?	Go to step 2	Problem solved
2	IN GATE ACTUATOR INSPECTION 1. Pull the HCS away from the DOC Assembly. 2. Inspect the IN Gate Actuator. Is the Actuator unbroken?	Go to step 3	Replace the IN Gate Actuator (RRP 6.85)
3	IN GATE INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-34. 2. Actuate and deactuate the IN Gate Interlock Switch. Does the Control Panel LCD display H when you actuate the Switch, and does the LCD display L when you do not actuate the Switch?	Go to step 4	Replace the IN Gate Interlock Switch (RRP 6.88)
4	Replace the Finisher PWB (RRP 6.81) Does the F6-1 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.15 Error Code F6-2

There is a problem at the Transport Cover Interlock Switch.

Logic control on the MCU PWB sensed that the Transport Cover is open.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	Close the Transport Cover. Does the error code F6-2 still appear?	Go to step 2	Problem solved
2	ACTUATOR INSPECTION Open the Transport Cover and inspect the molded tab that actuates the Transport Cover Interlock Switch. Is the actuator tab unbroken?	Go to step 3	Replace the Transport Cover Assembly (RRP 6.91)
3	TRANSPORT COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-35. 2. Actuate and deactuate the Transport Cover Interlock Switch. Does the Control Panel LCD display L when you actuate the Switch, and does the LCD display H when you do not actuate the Switch?	Go to step 4	Replace the Transport Cover Interlock Switch (RRP 6.92)
4	Replace the Finisher PWB (RRP 6.81) Does the F6-2 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.16 Error Code F7-1

There is a problem at the Front Cover Interlock Switch.

Logic control on the MCU PWB sensed that the Front Cover is open

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	Open and close the Front Cover. Does the error code F7-1 still appear?	Go to step 2	Problem solved
2	ACTUATOR INSPECTION Open the Front Cover and inspect the molded tab that actuates the Front Cover Interlock Switch. Is the actuator tab unbroken?	Go to step 3	Replace the Front Cover Assembly (RRP 6.2)
3	FRONT COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-33. 2. Actuate and deactuate the Front Cover Interlock Switch. Does the Control Panel LCD display L when you actuate the Switch, and does the LCD display H when you do not actuate the Switch?	Go to step 4	Replace the Front Cover Interlock Switch (RRP 6.65)
4	Replace the Finisher PWB (RRP 6.81) Does the F7-1 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.17 Error Code F7-2

There is a problem at the Top Cover Interlock Switch.

Logic control on the MCU PWB sensed that the Top Cover is open.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	Open and close the Top Cover. Does the error code F7-2 still appear?	Go to step 2	Problem solved
2	ACTUATOR INSPECTION Open the Top Cover and inspect the molded tab that actuates the Top Cover Interlock Switch. Is the actuator tab unbroken?	Go to step 3	Replace the Top Cover Assembly (RRP 6.62)
3	TOP COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-7. 2. Actuate and deactuate the Top Cover Interlock Switch. Does the Control Panel LCD display L when you actuate the Switch, and does the LCD display H when you do not actuate the Switch?	Go to step 4	Replace the Top Cover Interlock Switch (RRP 6.65)
4	Replace the Finisher PWB (RRP 6.81) Does the F7-2 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.18 Error Code F7-3

There is a problem at the Compiler Cover Safety Switch.

Logic control on the MCU PWB sensed that the Eject Chute is open and the Compiler Cover Safety Switch is not actuated

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	Open and close the Eject Chute. Does the error code F7-3 still appear?	Go to step 2	Problem solved
2	ACTUATOR INSPECTION 1. Remove the Front Inner Cover (RRP 6.3). 2. Inspect the molded tab on the Eject Chute that actuates the Safety Switch. 3. Raise and lower the Eject Chute. Is the actuator tab unbroken and does tab actuate and deactuate the Safety Switch?	Go to step 3	Replace the Eject Chute Assembly (RRP 6.55)
3	COMPILER COVER SAFETY SWITCH TEST 1. Actuate the Front Cover Interlock Switch 2. Enter Diagnostic Mode - Input H/L 12-6. 3. Close the Eject Chute just enough so the Compiler Cover Interlock Switches actuate. 4. Manually actuate and deactivate the Safety Switch. Does the Control Panel LCD display H when you actuate the Switch, and does the LCD display L when you do not actuate the Switch?	Go to step 4	Replace the Safety Switch (RRP 6.66)
4	Replace the Finisher PWB (RRP 6.81) Does the F7-3 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.19 Error Code F7-4

There is a problem at the Compiler Cover Interlock Switch.

Logic control on the MCU PWB sensed that the Eject Chute is open and the Compiler Cover Interlock Switch is not actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	Open and close the Eject Chute. Does the error code F7-4 still appear?	Go to step 2	Problem solved
2	ACTUATOR INSPECTION 1. Remove the Front Inner Cover (RRP 6.3). 2. Inspect the molded tab on the Eject Chute that actuates the Compiler Cover Interlock Switch actuator. 3. Raise and lower the Eject Chute. Is the actuator tab unbroken and does tab actuate and deactuate the Interlock Switch actuator, and does the actuator actuate and deactuate the Switches?	Go to step 3	Replace the Eject Chute Assembly (RRP 6.55)
3	COMPILER COVER INTERLOCK SWITCH TEST 1. Actuate the Front Cover Interlock Switch 2. Enter Diagnostic Mode - Input H/L 12-46. 3. Manually actuate and deactuate each of the two Compiler Cover Interlock Switches. Does the Control Panel LCD display H when you deactuate each Switch, and does the LCD display L when you actuate each Switch?	Go to step 4	Replace the faulty Compiler Cover Interlock Switch (RRP 6.66)
4	Replace the Finisher PWB (RRP 6.81) Does the F7-4 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.20 Error Code F8-1

There is a problem at the Finisher Interlock Sensor.

Logic control on the MCU PWB sensed that the HCS is not correctly positioned against the printer and the Finisher Interlock Sensor actuator is not pushed in.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components		
1	Push the HCS against the printer. Does the error code F8-1 still appear?	Go to step 2	Problem solved
2	FINISHER COVER INTERLOCK SENSOR TEST 1. Pull the HCS a few inches away from the printer, but do not disconnect the HCS interface cables. 2. Enter Diagnostic Mode - Input H/L 12-36. 3. Push in and release the Finisher Interlock Sensor actuator. Does the Control Panel LCD display L when you push in on the actuator, and does the LCD display H when you release the actuator?	Go to step 3	Replace the Finisher Interlock Sensor and Actuator (RRP 6.14)
3	Replace the Finisher PWB (RRP 6.81) Does the F8-1 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.21 Error Code H5-11

There is a problem at the Stack Height Sensor during Top Tray stacking.

Logic control on the MCU PWB sensed the Stack Height Sensor either did not actuate within the specified time after the Top Tray Motor switched on to raise the Top Tray, or the Sensor did not deactuate within the specified time after the Top Tray Motor switched on to lower the Top Tray.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STACK HEIGHT ACTUATOR INSPECTION 1. Remove the Eject Cover (RRP 6.7). 2. Inspect the Stack Height Sensor actuator. Is the actuator unbroken and does it move freely between the Sensor arms, and does it have a spring-action return?	Go to step 2	Replace the Stack Height Sensor Actuator (RRP 6.57)
2	STACK HEIGHT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-43. 2. Manually actuate and deactuate the Stack Height Sensor. Does the Control Panel LCD display L when you deactuate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 3	Replace the Stack Height Sensor (RRP 6.57)
3	TOP TRAY MOTOR TEST 1. Enter Diagnostic Mode - Output 14-69 to check the Top Tray Motor. 2. Enter Diagnostic Mode - Output 14-70 to check the Top Tray Motor. Does the Top Tray Motor rotate in both directions?	Go to step 4	Replace the Top Tray Motor (RRP 6.42)
4	TOP TRAY DRIVE BELT INSPECTION 1. Enter Diagnostic Mode - Output 14-69 to lower the Top Tray. 2. Enter Diagnostic Mode - Output 14-70 to raise the Top Tray. Do the Top Tray Drive Belts raise and lower the Top Tray?	Go to step 5	Replace the Top Tray Drive Belts (RRP 6.43)
5	Replace the Finisher PWB (RRP 6.81) Does the H5-11 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.22 Error Code H5-12

There is a problem at the Stack Height Sensor during Middle Tray stacking.

Logic control on the MCU PWB sensed the Stack Height Sensor either did not actuate within the specified time after the Middle Tray Motor switched on to raise the Middle Tray, or the Sensor did not deactivate within the specified time after the Middle Tray Motor switched on to lower the Middle Tray.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STACK HEIGHT ACTUATOR INSPECTION 1. Remove the Eject Cover (RRP 6.7). 2. Inspect the Stack Height Sensor actuator. Is the actuator unbroken and does it move freely between the Sensor arms, and does it have a spring-action return?	Go to step 2	Replace the Stack Height Sensor Actuator (RRP 6.57)
2	STACK HEIGHT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-43. 2. Manually actuate and deactivate the Stack Height Sensor. Does the Control Panel LCD display L when you deactivate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 3	Replace the Stack Height Sensor (RRP 6.57)
3	MIDDLE TRAY MOTOR TEST 1. Enter Diagnostic Mode - Output 14-71 to check the Middle Tray Motor. 2. Enter Diagnostic Mode - Output 14-72 to check the Middle Tray Motor. Does the Middle Tray Motor rotate in both directions?	Go to step 4	Replace the Middle Tray Motor (RRP 6.33)
4	MIDDLE TRAY DRIVE BELT INSPECTION 1. Enter Diagnostic Mode - Output 14-71 to lower the Middle Tray. 2. Enter Diagnostic Mode - Output 14-72 to raise the Middle Tray. Do the Middle Tray Drive Belts raise and lower the Middle Tray?	Go to step 5	Replace the Middle Tray Drive Belts (RRP 6.34)
5	Replace the Finisher PWB (RRP 6.81) Does the H5-12 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.23 Error Code H5-13

There is a problem at the Stack Height Sensor during Bottom Tray stacking.

Logic control on the MCU PWB sensed the Stack Height Sensor either did not actuate within the specified time after the Bottom Tray Motor switched on to raise the Bottom Tray, or the Sensor did not deactuate within the specified time after the Bottom Tray Motor switched on to lower the Bottom Tray.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STACK HEIGHT ACTUATOR INSPECTION 1. Remove the Eject Cover (RRP 6.7). 2. Inspect the Stack Height Sensor actuator. Is the actuator unbroken and does it move freely between the Sensor arms, and does it have a spring-action return?	Go to step 2	Replace the Stack Height Sensor Actuator (RRP 6.57)
2	STACK HEIGHT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-43. 2. Manually actuate and deactuate the Stack Height Sensor. Does the Control Panel LCD display L when you deactuate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 3	Replace the Stack Height Sensor (RRP 6.57)
3	BOTTOM TRAY MOTOR TEST 1. Enter Diagnostic Mode - Output 14-73 to check the Bottom Tray Motor. 2. Enter Diagnostic Mode - Output 14-74 to check the Bottom Tray Motor. Does the Bottom Tray Motor rotate in both directions?	Go to step 4	Replace the Bottom Tray Motor (RRP 6.25)
4	BOTTOM TRAY DRIVE BELT INSPECTION 1. Enter Diagnostic Mode - Output 14-73 to lower the Bottom Tray. 2. Enter Diagnostic Mode - Output 14-74 to raise the Bottom Tray. Do the Bottom Tray Drive Belts raise and lower the Bottom Tray?	Go to step 5	Replace the Bottom Tray Drive Belts (RRP 6.26)
5	Replace the Finisher PWB (RRP 6.81) Does the H5-13 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.24 Error Code H5-21

There is a problem at the Top Tray Upper Limit Sensor.

Logic control on the MCU PWB sensed the Top Tray Upper Limit Sensor is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	TOP TRAY UPPER LIMIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-37. 2. Manually actuate and deactivate the Top Tray Upper Limit Sensor. Does the Control Panel LCD display L when you deactivate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 2	Replace the Top Tray Upper Limit Sensor (RRP 6.39)
2	LIMIT ACTUATOR TRAVEL INSPECTION 1. Enter Diagnostic Mode - Output 14-69 to lower the Top Tray. 2. Enter Diagnostic Mode - Output 14-70 to raise the Top Tray. Does the Belt always drive the Limit Actuator on to Upper Limit Sensor?	Go to step 3	Replace the Top Tray Motor (RRP 6.42) and the Top Tray Drive Belts (RRP 6.43)
3	LIMIT ACTUATOR ADJUSTMENT 1. Enter Diagnostic Mode - Output 14-70 to drive the Limit Actuator to the top position. 2. Loosen the Belt Clamp screws and reposition the Clamp so the Actuator is off of the Upper Limit Sensor. 3. Repeat step 2. Does the Belt always drive the Limit Actuator on to Upper Limit Sensor?	Replace the Top Tray Motor (RRP 6.42) and the Top Tray Drive Belts (RRP 6.43)	Go to step 4
4	Replace the Finisher PWB (RRP 6.81) Does the H5-21 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.25 Error Code H5-22

There is a problem at the Middle Tray Upper Limit Sensor.

Logic control on the MCU PWB sensed the Middle Tray Upper Limit Sensor is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	MIDDLE TRAY UPPER LIMIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-38. 2. Manually actuate and deactuate the Middle Tray Upper Limit Sensor. Does the Control Panel LCD display L when you deactuate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 2	Replace the Middle Tray Upper Limit Sensor (RRP 6.30)
2	LIMIT ACTUATOR TRAVEL INSPECTION 1. Enter Diagnostic Mode - Output 14-71 to lower the Middle Tray. 2. Enter Diagnostic Mode - Output 14-72 to raise the Middle Tray. Does the Belt always drive the Limit Actuator on to Upper Limit Sensor?	Go to step 3	Replace the Middle Tray Motor (RRP 6.33) and the Middle Tray Drive Belts (RRP 6.34)
3	LIMIT ACTUATOR ADJUSTMENT 1. Enter Diagnostic Mode - Output 14-72 to drive the Limit Actuator to the top position. 2. Loosen the Belt Clamp screws and reposition the Clamp so the Actuator is off of the Upper Limit Sensor. 3. Repeat step 2. Does the Belt always drive the Limit Actuator on to Upper Limit Sensor?	Replace the Middle Tray Motor (RRP 6.33) and the Middle Tray Drive Belts (RRP 6.34)	Go to step 4
4	Replace the Finisher PWB (RRP 6.81) Does the H5-22 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.26 Error Code H5-23

There is a problem at the Bottom Tray Upper Limit Sensor.

Logic control on the MCU PWB sensed the Bottom Tray Upper Limit Sensor is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	BOTTOM TRAY UPPER LIMIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-39. 2. Manually actuate and deactuate the Bottom Tray Upper Limit Sensor. Does the Control Panel LCD display L when you deactuate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 2	Replace the Bottom Tray Upper Limit Sensor (RRP 6.21)
2	LIMIT ACTUATOR TRAVEL INSPECTION 1. Enter Diagnostic Mode - Output 14-73 to lower the Bottom Tray. 2. Enter Diagnostic Mode - Output 14-74 to raise the Bottom Tray. Does the Belt always drive the Limit Actuator on to Upper Limit Sensor?	Go to step 3	Replace the Bottom Tray Motor (RRP 6.25) and the Bottom Tray Drive Belts (RRP 6.26)
3	LIMIT ACTUATOR ADJUSTMENT 1. Enter Diagnostic Mode - Output 14-74 to drive the Limit Actuator to the top position. 2. Loosen the Belt Clamp screws and reposition the Clamp so the Actuator is off of the Upper Limit Sensor. 3. Repeat step 2. Does the Belt always drive the Limit Actuator on to Upper Limit Sensor?	Replace the Bottom Tray Motor (RRP 6.25) and the Bottom Tray Drive Belts (RRP 6.26)	Go to step 4
4	Replace the Finisher PWB (RRP 6.81) Does the H5-23 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.27 Error Code H5-31

There is a problem at the Top Tray Lower Limit Sensor.

Logic control on the MCU PWB sensed the Top Tray Lower Limit Sensor is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	TOP TRAY LOWER LIMIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-40. 2. Manually actuate and deactuate the Top Tray Lower Limit Sensor. Does the Control Panel LCD display L when you deactuate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 2	Replace the Top Tray Lower Limit Sensor (RRP 6.39)
2	LIMIT ACTUATOR TRAVEL INSPECTION 1. Enter Diagnostic Mode - Output 14-69 to lower the Top Tray. 2. Enter Diagnostic Mode - Output 14-70 to raise the Top Tray. Does the Belt always drive the Limit Actuator on to Lower Limit Sensor?	Go to step 3	Replace the Top Tray Motor (RRP 6.42) and the Top Tray Drive Belts (RRP 6.43)
3	LIMIT ACTUATOR ADJUSTMENT 1. Enter Diagnostic Mode - Output 14-69 to drive the Limit Actuator to the bottom position. 2. Loosen the Belt Clamp screws and reposition the Clamp so the Actuator is off of the Lower Limit Sensor. 3. Repeat step 2. Does the Belt always drive the Limit Actuator on to Lower Limit Sensor?	Replace the Top Tray Motor (RRP 6.42) and the Top Tray Drive Belts (RRP 6.43)	Go to step 4
4	Replace the Finisher PWB (RRP 6.81) Does the H5-31 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.28 Error Code H5-32

There is a problem at the Middle Tray Lower Limit Sensor.

Logic control on the MCU PWB sensed the Middle Tray Lower Limit Sensor is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	MIDDLE TRAY LOWER LIMIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-41. 2. Manually actuate and deactuate the Middle Tray Lower Limit Sensor. Does the Control Panel LCD display L when you deactuate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 2	Replace the Middle Tray Lower Limit Sensor (RRP 6.30)
2	LIMIT ACTUATOR TRAVEL INSPECTION 1. Enter Diagnostic Mode - Output 14-71 to lower the Middle Tray. 2. Enter Diagnostic Mode - Output 14-72 to raise the Middle Tray. Does the Belt always drive the Limit Actuator on to Lower Limit Sensor?	Go to step 3	Replace the Middle Tray Motor (RRP 6.33) and the Middle Tray Drive Belts (RRP 6.34)
3	LIMIT ACTUATOR ADJUSTMENT 1. Enter Diagnostic Mode - Output 14-71 to drive the Limit Actuator to the bottom position. 2. Loosen the Belt Clamp screws and reposition the Clamp so the Actuator is off of the Lower Limit Sensor. 3. Repeat step 2. Does the Belt always drive the Limit Actuator on to Lower Limit Sensor?	Replace the Middle Tray Motor (RRP 6.33) and the Middle Tray Drive Belts (RRP 6.34)	Go to step 4
4	Replace the Finisher PWB (RRP 6.81) Does the H5-32 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.29 Error Code H5-33

There is a problem at the Bottom Tray Lower Limit Sensor.

Logic control on the MCU PWB sensed the Bottom Tray Lower Limit Sensor is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	BOTTOM TRAY LOWER LIMIT SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-42. 2. Manually actuate and deactuate the Bottom Tray Lower Limit Sensor. Does the Control Panel LCD display L when you deactuate the Sensor, and does the LCD display H when you actuate the Sensor?	Go to step 2	Replace the Bottom Tray Lower Limit Sensor (RRP 6.21)
2	LIMIT ACTUATOR TRAVEL INSPECTION 1. Enter Diagnostic Mode - Output 14-73 to lower the Bottom Tray. 2. Enter Diagnostic Mode - Output 14-74 to raise the Bottom Tray. Does the Belt always drive the Limit Actuator on to Lower Limit Sensor?	Go to step 3	Replace the Bottom Tray Motor (RRP 6.25) and the Bottom Tray Drive Belts (RRP 6.26)
3	LIMIT ACTUATOR ADJUSTMENT 1. Enter Diagnostic Mode - Output 14-73 to drive the Limit Actuator to the bottom position. 2. Loosen the Belt Clamp screws and reposition the Clamp so the Actuator is off of the Upper Limit Sensor. 3. Repeat step 2. Does the Belt always drive the Limit Actuator on to Lower Limit Sensor?	Replace the Bottom Tray Motor (RRP 6.25) and the Bottom Tray Drive Belts (RRP 6.26)	Go to step 4
4	Replace the Finisher PWB (RRP 6.81) Does the H5-33 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.30 Error Code H5-81

There is a problem at the Finisher Eject Clamp Sensor.

Logic control on the MCU PWB sensed that the Finisher Eject Clamp Sensor either does not go from actuated to deactuated or from deactuated to actuated within the specified time.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	EJECT CLAMP SENSOR TEST 1. Remove the Eject Clamp Sensor from the Eject Bracket (RRP 6.79). 2. Enter Diagnostic Mode - Input H/L 12-16. 3. Insert and remove a piece of paper between the Sensor arms. Does the Control Panel LCD display H when you insert the paper into the Sensor, and does the LCD display L when you remove the paper?	Go to step 2	Replace the Eject Clamp Sensor (RRP 6.79)
2	EJECT CLAMP SENSOR ACTUATOR TEST 1. Reinstall the Eject Clamp Sensor (RRP 6.79). 2. Enter Diagnostic Mode - Input H/L 12-16. 3. Manually rotate the one-way gear that is attached to the Eject Clamp Actuator and observe the action of the Actuator. Does the Control Panel LCD display H when the Actuator blocks the Sensor, and does the LCD display L when the Actuator does not block the Sensor?	Go to step 3	Replace the Eject Bracket Assembly (RRP 6.77) or replace the Eject Clamp Actuator (PL20.4.18)
3	EJECT CLAMP MOTOR TEST 1. Enter Diagnostic Mode - Output 14-61 to check the Eject Clamp Motor. 2. Observe the Eject Clamp Actuator as you run 14-61. Does the Eject Clamp Motor run, and does it rotate the Eject Clamp Sensor Actuator so it blocks the Eject Clamp Sensor?	Go to step 4	Replace the Eject Clamp Offset Motor (RRP 6.78)
4	Replace the Finisher PWB (RRP 6.81) Does the H5-81 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.31 Error Code H5-82

There is a problem at the Tamper Sensor.

Logic control on the MCU PWB sensed that the Tamper Sensor Homer either did not actuate within the specified time after Tamper begins moving to the Rear position, or that the Tamper Home Sensor did not deactivate within the specified time after the Tamper begins moving to the Front position.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	TAMPER HOME SENSOR TEST 1. Remove four screws securing the Eject Roll Chute to the HCS and remove the Chute (see RRP 6.51). 2. Enter Diagnostic Mode - Input H/L 12-4 to test the Tamper Home Sensor. 3. Locate the Tamper Home Sensor (see RRP 6.46). 4. Slide the Tamper Base back and forth. Does the Control Panel LCD display L when you slide the Tamper Base off of the Sensor, and does the LCD display H when you slide the Base onto the Sensor?	Go to step 2	Replace the Tamper Home Sensor (RRP 6.46)
2	TAMPER MOTOR TEST 1. Enter Diagnostic Mode - Output 14-53 to check the Tamper Motor drive to the front. 2. Enter Diagnostic Mode - Output 14-54 to check the Tamper Motor drive to the rear. Does the Tamper Motor run in both 14-53 and 14.54?	Go to step 3	Replace the Tamper Motor (RRP 6.45)
3	TAMPER DRIVE FRONT TEST 1. Enter Diagnostic Mode - Output 14-53 to check the Tamper Motor drive to the front. 2. Observe the movement of the Tamper Base and the Tamper Home Sensor Actuator that is located under the Base. Does the Tamper Motor drive the Tamper Base to the front of the Compiler Tray so the Actuator is not actuating the Tamper Home Sensor?	Go to step 4	Adjust or replace the Tamper Motor Drive Belt (RRP 6.49)

2.31 Error Code H5-82 continued

Step	Actions and Questions	Yes	No
4	TAMPER DRIVE REAR TEST 1. Enter Diagnostic Mode - Output 14-54 to check the Tamper Motor drive to the rear. 2. Observe the movement of the Tamper Base and the Tamper Home Sensor Actuator that is located under the Base. Does the Tamper Motor drive the Tamper Base to the rear of the Compiler Tray so the Actuator is not actuating the Tamper Home Sensor?	Go to step 5	Adjust or replace the Tamper Motor Drive Belt (RRP 6.49)
5	Replace the Finisher PWB (RRP 6.81) Does the H5-82 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.32 Error Code H5-83

There is a problem at the Offset Home Sensor.

Logic control on the MCU PWB sensed that the Stacker Offset Home Sensor either does not go from actuated to deactuated or from deactuated to actuated within the specified time.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	OFFSET HOME SENSOR TEST 1. Remove the Offset Home Sensor (RRP 6.80). 2. Enter Diagnostic Mode - Input H/L 12-18 to test the Offset Home Sensor. 3. Insert and remove a piece of paper between the Sensor arms. Does the Control Panel LCD display L when you insert the paper between the Sensor arms, and does the LCD display H when you remove the paper?	Go to step 2	Replace the Offset Home Sensor (RRP 6.80)
2	OFFSET HOME SENSOR ACTUATOR TEST 1. Reinstall the Offset Home Sensor (RRP 6.80). 2. Enter Diagnostic Mode - Input H/L 12-18. 3. Manually rotate the Eject Clamp Motor drive gear and observe the LCD. Does the Control Panel LCD display H then L as you rotate the drive gear through 360 degrees?	Go to step 3	Replace the Eject Bracket Assembly (RRP 6.77)
3	EJECT CLAMP MOTOR TEST Enter Diagnostic Mode - Output 14-61 to check the Eject Clamp Motor. Does the Eject Clamp Motor run?	Go to step 4	Replace the Eject Clamp Offset Motor (RRP 6.78)
4	Replace the Finisher PWB (RRP 6.81) Does the H5-83 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.33 Error Code H5-84

There is a problem at the Stacker Tray ID Sensor.

Logic control on the MCU PWB sensed that the Stacker Tray ID Sensor either does not go from actuated to deactuated or from deactuated to actuated within the specified time after the Stacker Tray Unit Elevator Motor is switched on.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STACKER TRAY ID SENSOR TEST 1. Enter Diagnostic Mode - Input H/L 12-28 to test the Stacker Tray ID Sensor. 2. Insert and remove a piece of paper between the Sensor arms. Does the Control Panel LCD display L when you insert the paper between the Sensor arms, and does the LCD display H when you remove the paper?	Go to step 2	Replace the Stacker tray ID Sensor (RRP 6.15)
2	ELEVATOR MOTOR TEST Enter Diagnostic Mode - Output 14-67 to lower the Stacker Trays. Does the Elevator Motor run?	Go to step 3	Replace the Elevator Motor (RRP 6.17)
3	ELEVATOR MOTOR TEST Enter Diagnostic Mode - Output 14-68 to raise the Stacker Trays. Does the Elevator Motor run?	Go to step 4	Replace the Elevator Motor (RRP 6.17)
4	ELEVATOR DRIVE SHAFT AND LINKAGE OBSERVATION While running Output tests 14-67 and 14-68 observe the Elevator Drive Shaft and Stacker Trays. Does the Elevator Motor rotate the Drive Shaft and does the Shaft raise and lower the three Trays?	Go to step 5	Troubleshoot the Elevator Drive Shaft and Linkage.
5	Replace the Finisher PWB (RRP 6.81) Does the H5-84 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.34 Error Code H5-85

There is a problem at the Stacker Upper Limit Switch.

Logic control on the MCU PWB sensed that the Stacker Upper Limit Switch is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STACKER UPPER LIMIT SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-29 to test the Stacker Upper Limit Switch. 2. Actuate and deactuate the Stacker Upper Limit Switch. Does the Control Panel LCD display L when you actuate the switch, and does the LCD display H when you deactuate the switch?	Go to step 2	Replace the Stacker Upper Limit Switch (RRP 6.12)
2	ELEVATOR MOTOR TEST 1. Enter Diagnostic Mode - Output 14-67 to lower the Stacker Trays. 2. Enter Diagnostic Mode - Output 14-68 to raise the Stacker Trays. Do the Stacker Trays actuate the Upper Limit Switch when you raise the Trays?	Go to step 3	Replace the Elevator Motor (RRP 6.17)
3	Replace the Finisher PWB (RRP 6.81) Does the H5-85 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

3.35 Error Code H5-86

There is a problem with the Stacker Lower Limit Switch.

Logic control on the MCU PWB sensed that the Stacker Upper Limit Switch is actuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STACKER LOWER LIMIT SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-30 to test the Stacker Lower Limit Switch. 2. Actuate and deactuate the Stacker Lower Limit Switch. Does the Control Panel LCD display L when you actuate the switch, and does the LCD display H when you deactuate the switch?	Go to step 2	Replace the Stacker Lower Limit Switch (RRP 6.13)
2	ELEVATOR MOTOR TEST 1. Enter Diagnostic Mode - Output 14-68 to raise the Stacker Trays. 2. Enter Diagnostic Mode - Output 14-67 to lower the Stacker Trays. Do the Stacker Trays actuate the Lower Limit Switch when you lower the Trays?	Go to step 3	Replace the Elevator Motor (RRP 6.17)
3	Replace the Finisher PWB (RRP 6.81) Does the H5-86 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.36 Error Code H5-91

There is a problem at the Stapler Head Home Sensor.

Logic control on the MCU PWB sensed that the Stapler Head Home Sensor remains deactuated.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STAPLER HEAD HOME SENSOR TEST 1. Remove the Front Cover Inner Assembly (RRP 6.3). 2. Enter Diagnostic Mode - Input H/L 12-20 to test the Stapler Head Home Switch. 3. Rotate the D shaped cam that is located next to the Stapler Cartridge eject lever. Does the Control Panel LCD display alternately L and H as you rotate the cam through 360 degrees?	Go to step 2	Replace the Stapler Assembly (RRP 6.59)
2	Replace the Finisher PWB (RRP 6.81) Does the H5-91 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.37 Error Code H5-92

There is a problem with the Stapler Home Sensor.

Logic control on the MCU PWB sensed that the Stapler Head Home Sensor does not actuate within the specified time after the Stapler Head Motor was switched on.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STAPLER HEAD HOME SENSOR TEST 1. Remove the Front Cover Inner Assembly (RRP 6.3). 2. Enter Diagnostic Mode - Input H/L 12-20 to test the Stapler Head Home Switch. 3. Rotate the D shaped cam that is located next to the Stapler Cartridge eject lever. Does the Control Panel LCD display alternately L and H as you rotate the cam through 360 degrees?	Go to step 2	Replace the Stapler Assembly (RRP 6.59)
2	STAPLER HEAD MOTOR TEST Enter Diagnostic Mode - Output 14-60 to test the Stapler Head Motor. Does the Stapler Head Motor run?	Go to step 3	Replace the Stapler Assembly (RRP 6.59)
3	Replace the Finisher PWB (RRP 6.81) Does the H5-92 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.38 Error Code H5-93

There is a problem at the Front Corner Sensor.

Logic control on the MCU PWB sensed that the Stapler Front Corner Sensor does not actuate within the specified time after the Stapler Transport Motor is switched on

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STAPLER FRONT CORNER SENSOR TEST 1. Remove the Front Cover Inner Assembly (RRP 6.3) and the L/H Cover (RRP 6.5). 2. Enter Diagnostic Mode - Input H/L 12-9 to test the Stapler Front Corner Sensor. 3. Insert and remove a piece of paper between the Sensor arms. Does the Control Panel LCD display H when you insert the paper between the Sensor arms, and does the LCD display L when you remove the paper?	Go to step 2	Replace the Stapler Front Corner Sensor (RRP 6.60)
2	STAPLER TRANSPORT MOTOR TEST 1. Remove the Rear Cover (RRP 6.8). 2. Enter Diagnostic Mode - Output 14-58 to test the Stapler Transport Motor. Does the Stapler Transport Motor run?	Go to step 3	Replace the Stapler Transport Motor (RRP 6.74)
3	STAPLER DRIVE BELT OBSERVATION While running step 2, observe the Stapler Motor Drive Belt. Does the Stapler Motor Drive Belt rotate when the Motor is running?	Go to step 4	Replace the Stapler Transport Motor Drive Belt (RRP 6.75)
4	STAPLER RAIL BELT OBSERVATION While running step 2, observe the Stapler Rail Belt. Does the Stapler Rail Belt rotate and move the Stapler Assembly?	Go to step 5	Replace the Stapler Rail Belt (RRP 6.61)
5	Replace the Finisher PWB (RRP 6.81) Does the H5-93 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.39 Error Code H5-94

There is a problem at the Front Edge Sensor.

Logic control on the MCU PWB sensed that the Stapler Front Edge Sensor does not actuate within the specified time after the Stapler Transport Motor is switched on.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STAPLER FRONT EDGE SENSOR TEST 1. Remove the Front Cover Inner Assembly (RRP 6.3) and the L/H Cover (RRP 6.5). 2. Enter Diagnostic Mode - Input H/L 12-10 to test the Stapler Front Edge Sensor. 3. Insert and remove a piece of paper between the Sensor arms. Does the Control Panel LCD display H when you insert the paper between the Sensor arms, and does the LCD display L when you remove the paper?	Go to step 2	Replace the Stapler Front Edge Sensor (RRP 6.60)
2	STAPLER TRANSPORT MOTOR TEST 1. Remove the Rear Cover (RRP 6.8). 2. Enter Diagnostic Mode - Output 14-58 to test the Stapler Transport Motor. Does the Stapler Transport Motor run?	Go to step 3	Replace the Stapler Transport Motor (RRP 6.74)
3	STAPLER DRIVE BELT OBSERVATION While running step 2, observe the Stapler Motor Drive Belt. Does the Stapler Motor Drive Belt rotate when the Motor is running?	Go to step 4	Replace the Stapler Transport Motor Drive Belt (RRP 6.75)
4	STAPLER RAIL BELT OBSERVATION While running step 2, observe the Stapler Rail Belt. Does the Stapler Rail Belt rotate and move the Stapler Assembly?	Go to step 5	Replace the Stapler Rail Belt (RRP 6.61)
5	Replace the Finisher PWB (RRP 6.81) Does the H5-94 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.40 Error Code H5-95

There is a problem with the Rear Edge Sensor.

Logic control on the MCU PWB sensed that the Stapler Rear Edge Sensor does not actuate within the specified time after the Stapler Transport Motor is switched on

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	STAPLER REAR EDGE SENSOR TEST 1. Remove the Front Cover Inner Assembly (RRP 6.3) and the L/H Cover (RRP 6.5). 2. Enter Diagnostic Mode - Input H/L 12-11 to test the Stapler Rear Edge Sensor. 3. Insert and remove a piece of paper between the Sensor arms. Does the Control Panel LCD display H when you insert the paper between the Sensor arms, and does the LCD display L when you remove the paper?	Go to step 2	Replace the Stapler Rear Edge Sensor (RRP 6.60)
2	STAPLER TRANSPORT MOTOR TEST 1. Remove the Rear Cover (RRP 6.8). 2. Enter Diagnostic Mode - Output 14-58 to test the Stapler Transport Motor. Does the Stapler Transport Motor run?	Go to step 3	Replace the Stapler Transport Motor (RRP 6.74)
3	STAPLER DRIVE BELT OBSERVATION While running step 2, observe the Stapler Motor Drive Belt. Does the Stapler Motor Drive Belt rotate when the Motor is running?	Go to step 4	Replace the Stapler Transport Motor Drive Belt (RRP 6.75)
4	STAPLER RAIL BELT OBSERVATION While running step 2, observe the Stapler Rail Belt. Does the Stapler Rail Belt rotate and move the Stapler Assembly?	Go to step 5	Replace the Stapler Rail Belt (RRP 6.61)
5	Replace the Finisher PWB (RRP 6.81) Does the H5-95 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.41 Error Code H5-96

There is a problem at the Set Clamp Home Sensor.

Logic control on the MCU PWB sensed that the Set Clamp Home Sensor does not actuate nor deactuate within the specified time after the Set Clamp Motor is switched on.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	SET CLAMP HOME SENSOR TEST 1. Remove the Rear Cover (RRP 6.8). 2. Enter Diagnostic Mode - Input H/L 12-17 to test the Set Clamp Home Sensor. 3. Rotate Eject Shaft #1 so the Set Clamp Actuator located at the rear end of the Shaft actuates and deactuates the Set Clamp Home Sensor. Does the Control Panel LCD display H when the Actuator is between the Sensor arms, and does the LCD display L when the Actuator is clear of the Sensor?	Go to step 2	Replace the Set Clamp Home Sensor (RRP 6.72)
2	SET CLAMP MOTOR TEST Enter Diagnostic Mode - Output 14-66 to test the Set Clamp Motor. Does the Set Clamp Motor run?	Go to step 3	Replace the Set Clamp Motor (RRP 6.70)
3	SET CLAMP ACTUATOR POSITION OBSERVATION 1. Run Output 14-66 once, to position the Set Clamp Actuator. 2. Exit Output 14-66 and enter Input H/L 12-17. Does the Control Panel LCD display L?	Go to step 4	Replace the Eject Shaft Assemblies (RRP 6.51)
4	Replace the Finisher PWB (RRP 6.81) Does the H5-96 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

2.42 Error Code H5-97

There is a problem at the End Wall Sensor.

Logic control on the MCU PWB sensed that the End Wall Sensor either does not go from actuated to deactuated or from deactuated to actuated within the specified time.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •LVPS (RRP 6.82)		
1	END WALL SENSOR TEST 1. Remove the Front Inner Cover (RRP 6.3). 2. Enter Diagnostic Mode - Input H/L 12-08 to test the End Wall Sensor. 3. Use the End Wall Motor Yoke (see RRP 6.68) to raise and lower the End Wall. Does the Control Panel LCD display H when the End Wall is raised, and does the LCD display L when the End Wall is lowered?	Go to step 2	Replace the End Wall Open Sensor (RRP 6.48)
2	END WALL MOTOR TEST 1. Enter Diagnostic Mode - Output 14-56 to test the End Wall Motor forward function. 2. Enter Diagnostic Mode - Output 14-57 to test the End Wall Motor reverse function. Does the End Wall Motor raise and lower the End Wall?	Go to step 3	Replace the End Wall Motor (RRP 6.68)
3	Replace the Finisher PWB (RRP 6.81) Does the H5-97 error code still appear?	Replace the MCU PWB (RRP 9.6)	Problem solved

Section 3 - Primary FIPs: Performance Problems

3.1 Inoperative HCS

The HCS does not function, none of the Stacker Motors switch on, the Trays do not raise into position, and the problem is not identified by a displayed Error Code.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •ESS Assembly or print driver software		
1	PROBLEM ISOLATION 1. Disconnect the HCS from the base engine (RRP 6.1). 2. Enter Diagnostic Mode - 23-13 and generate a test print. Does the printer generate a test print and sent it to the Face Down Output Tray?	Reattach the HCS to the base engine, then go to step 2	Go to the Base Engine Technical Manual Section 4.1: Inoperative Printer , and troubleshoot a printer problem.
2	Go to FIP 6.1 and check for the presence of +5VDC, then return to this step. Is +5VDC present in the HCS?	Go to step 3	Go to FIP 6.1 and troubleshoot the loss of +5VDC
3	Go to FIP 6.2 and check for the presence of +24VDC, then return to this step. Is +24VDC present in the HCS?	Go to step 4	Go to FIP 6.2 and troubleshoot the loss of +24VDC
4	IN GATE INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-34. 2. Actuate and deactivate the IN Gate Interlock Switch. Does the Control Panel LCD display H when you actuate the Switch, and does the LCD display L when you do not actuate the Switch?	Go to step 5	Replace the IN Gate Interlock Switch (RRP 6.88)
5	TRANSPORT COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-35. 2. Actuate and deactivate the Transport Cover Interlock Switch. Does the Control Panel LCD display L when you actuate the Switch, and does the LCD display H when you do not actuate the Switch?	Go to step 6	Replace the Transport Cover Interlock Switch (RRP 6.92)

3.1 Inoperative HCS continued

Step	Actions and Questions	Yes	No
6	FRONT COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-33. 2. Actuate and deactuate the Front Cover Interlock Switch. Does the Control Panel LCD display L when you actuate the Switch, and does the LCD display H when you do not actuate the Switch?	Go to step 7	Replace the Front Cover Interlock Switch (RRP 6.65)
7	TOP COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-7. 2. Actuate and deactuate the Top Cover Interlock Switch. Does the Control Panel LCD display L when you actuate the Switch, and does the LCD display H when you do not actuate the Switch?	Go to step 8	Replace the Top Cover Interlock Switch (RRP 6.65)
8	COMPILER COVER INTERLOCK SWITCH TEST 1. Enter Diagnostic Mode - Input H/L 12-46. 2. Manually actuate and deactuate each of the two Compiler Cover Interlock Switches. Does the Control Panel LCD display H when you deactuate each Switch, and does the LCD display L when you actuate each Switch?	Go to step 9	Replace the faulty Compiler Cover Interlock Switch (RRP 6.66)
9	FINISHER COVER INTERLOCK SENSOR TEST 1. Pull the HCS a few inches away from the printer, but do not disconnect the HCS interface cables. 2. Enter Diagnostic Mode - Input H/L 12-36. 3. Push in and release the Finisher Interlock Sensor actuator. Does the Control Panel LCD display L when you push in on the actuator, and does the LCD display H when you release the actuator?	Go to step 10	Replace the Finisher Interlock Sensor and Actuator (RRP 6.14)
10	RANDOM OUTPUT TESTS 1. Enter Diagnostic Mode and run three or four random Output tests. Do all of the Output tests run?	Go to step 11	Replace the Finisher PWB (RRP 6.81)
11	RANDOM INPUT TESTS 1. Enter Diagnostic Mode and run three or four random Input tests. Do all of the Input tests run?	Go to step 12	Replace the Finisher PWB (RRP 6.81)
12	Replace the MCU PWB (RRP 9.6) Is the printer still inoperative?	Go to Suspect Components	Problem solved

3.2 The Printer Does Not See the HCS

The printer does not see or recognize the attached HCS.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •ESS Assembly or print driver software		
1	REINITIALIZATION 1. Switch off printer main power. 2. Disconnect and reconnect the two HCS interface cables that are connected to the printer. 3. Switch on printer main power. Does the printer see the HCS?	Problem solved. Treat as an intermittent firmware problem, or possible connector/cable problem.	Go to step 2.
2	Replace the HCS Interface Cable (PL21.2.20) and the HCS AC Cable (PL21.1.6). Does the printer see the HCS?	Problem solved.	Go to step 3
3	Replace the MCU PWB (RRP 9.6). Does the printer see the HCS?	Problem solved.	Replace the Finisher PWB (RRP 6.81)

Section 4 - Secondary FIPs

Description of the secondary FIPs begin on the following page.

4.1 Loss of +5VDC

There is no +5VDC to some of or all of the HCS components.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •+5VDC component loading down the +5VDC circuit		
1	PROBLEM ISOLATION 1. Disconnect the HCS from the base engine (RRP 6.1). 2. Enter Diagnostic Mode - 23-13 and generate a test print. Does the printer generate a test print and sent it to the Face Down Output Tray?	Reattach the HCS to the base engine, then go to step 2	Go to the Base Engine Technical Manual Section 4.1: Inoperative Printer , and troubleshoot a printer problem.
2	HCS VOLTAGE CHECK PREPARATION 1. Remove the PWB Top Cover (RRP 6.81). 2. Close the HCS Top Cover or actuate the Top Cover Interlock Switch. 3. Close the HCS Front Cover or actuate the Front Cover Interlock Switch. 4. Close the Compiler Cover or actuate the Compiler Cover Interlock Switches. 5. Switch on printer power.  AC line voltage is present on the LVPS PWB. With the protective PWB Top Cover removed there is a shock danger present. Use extreme caution when working on and around the LVPS and the Finisher PWB.	Go to step 3	Go to step 3
3	AC INPUT TO LVPS CHECK 1. Set your multimeter to read AC voltage. 2. Measure the voltage between P/J2-3 and P/J2-4 on the LVPS. Is there 110 VAC between P/J2-3 and P/J2-4?	Go to step 4	Go to the Base Engine Technical Manual and troubleshoot a loss of AC problem.

4.1 Loss of +5VDC continued

Step	Actions and Questions	Yes	No
4	+5VDC OUTPUT FROM THE LVPS CHECK 1. Set your multimeter to read DC voltage. 2. Measure the voltage between P/J505-3 and FG (frame ground) and between P/J505-4 and FG on the LVPS. Is there +5VDC between P/J505-3 and FG and between P/J505-4 and FG?	Go to step 5	Replace the LVPS (RRP 6.82)
5	+5VDC INPUT FROM THE MCU CHECK 1. Set your multimeter to read DC voltage. 2. Measure the voltage between P/J265-12 and FG and between P/J265-10 and FG on the Finisher PWB. Is there +5VDC between P/J265-12 and FG and between P/J265-10 and FG?	Go to step 6	Go to the Base Engine Technical Manual Section 4.1: Inoperative Printer, and troubleshoot a printer problem.
6	+5VDC OUTPUT FROM THE FINISHER PWB CHECK 1. Set your multimeter to read DC voltage. 2. Measure the voltage between P/J896-A1 and FG and between P/J896-A2 and FG on the Finisher PWB. Is there +5VDC between P/J896-A1 and FG and between P/J896-A2 and FG?	Go to Suspect Components	Replace the Finisher PWB Assembly (RRP 6.81)

4.2 Loss of +24VDC

There is no +24VDC to some of or all of the HCS components.

Step	Actions and Questions	Yes	No
	SUSPECT COMPONENTS The following components are associated with this specific problem. One or more of these components may have failed partially or completely. If you cannot isolate the problem using this FIP, replace each component listed below, one at a time, until the problem disappears. •wiring and connectors linking the components •+24VDC component loading down the +24VDC circuit		
1	PROBLEM ISOLATION 1. Disconnect the HCS from the base engine (RRP 6.1). 2. Enter Diagnostic Mode - 23-13 and generate a test print. Does the printer generate a test print and sent it to the Face Down Output Tray?	Reattach the HCS to the base engine, then go to step 2	Go to the Base Engine Technical Manual Section 4.1: Inoperative Printer , and troubleshoot a printer problem.
2	HCS VOLTAGE CHECK PREPARATION 1. Remove the PWB Top Cover (RRP 6.81). 2. Close the HCS Top Cover or actuate the Top Cover Interlock Switch. 3. Close the HCS Front Cover or actuate the Front Cover Interlock Switch. 4. Close the Compiler Cover or actuate the Compiler Cover Interlock Switches. 5. Switch on printer power.  AC line voltage is present on the LVPS PWB. With the protective PWB Top Cover removed there is a shock danger present. Use extreme caution when working on and around the LVPS and the Finisher PWB.	Go to step 3	Go to step 3
3	AC INPUT TO LVPS CHECK 1. Set your multimeter to read AC voltage. 2. Measure the voltage between P/J2-3 and P/J2-4 on the LVPS. Is there 110 VAC between P/J2-3 and P/J2-4?	Go to step 4	Go to the Base Engine Technical Manual and troubleshoot a loss of AC problem.

4.2 Loss of +24VDC continued

Step	Actions and Questions	Yes	No
4	+24VDC OUTPUT FROM THE LVPS CHECK 1. Set your multimeter to read DC voltage. 2. Measure the voltage between P/J502-1 and FG (frame ground). Is there +24VDC between P/J502-1 and FG?	Go to step 5	Replace the LVPS (RRP 6.82)
5	+24VDC INPUT FROM THE MCU CHECK 1. Set your multimeter to read DC voltage. 2. Measure the voltage between P/J265-8 and FG on the Finisher PWB. Is there +24VDC between P/J265-8 and FG?	Go to step 6	Go to the Base Engine Technical Manual Section 4.1: Inoperative Printer, and troubleshoot a printer problem.
6	+24VDC OUTPUT FROM THE FINISHER PWB CHECK 1. Set your multimeter to read DC voltage. 2. Measure the voltage between P/J897-13 and FG on the Finisher PWB. Is there +24VDC between P/J897-13 and FG?	Go to Suspect Components	Replace the Finisher PWB Assembly (RRP 6.81)

Section 5 - Running HCS Diagnostics

Diagnostic Mode Routines and Subroutines

While in Diagnostic Mode you have access to a variety of test functions:

- 1 **Input Test (H/L)**
Check the signal level (on/off) coming from a specific sensor.
- 1 **Output Test**
Switch on and off a specific component, such as a motor or a solenoid.
- 1 **Test Print**
Have the printer generate a test print and deliver it to the HCS for stapling and offsetting.

Before running Diagnostics

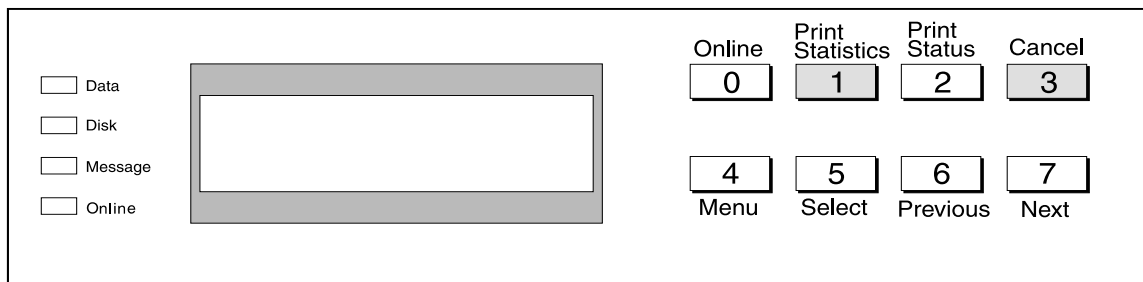
Connect the printer Control Panel to the MCU PWB (Refer to *Section 7-Diagnostic Mode and the Control Panel* of the Base Engine Technical Manual) on how to connect and use the Control Panel to run Diagnostics).



Run only those Diagnostic routines that are listed in this manual. Do not enter random numbers when in Diagnostic Mode. Diagnostics provide very little feedback to the Control Panel LCD as to which Diagnostic Routine you are running. By entering random numbers you could unknowingly alter important printer operation parameters and seriously effect normal printer operation.

To enter Diagnostic Mode

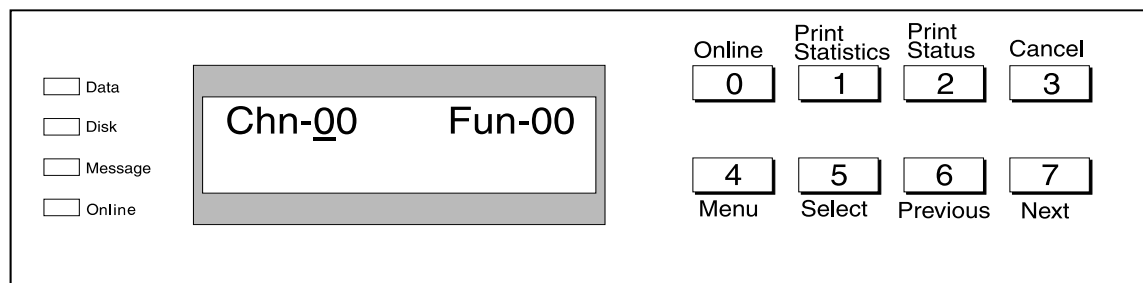
1. Press and hold [1] and [3] while you switch on printer main power.



SER875X

2. When the Control Panel LCD displays *Chn-00 Fun-00*, as shown below, release [1] and [3].

The printer is now in Diagnostic Mode.



SER876X

Running an Output Test

Use this Diagnostic routine to actuate High Capacity Stacker components such as motors and solenoids. You can run multiple output tests simultaneously.

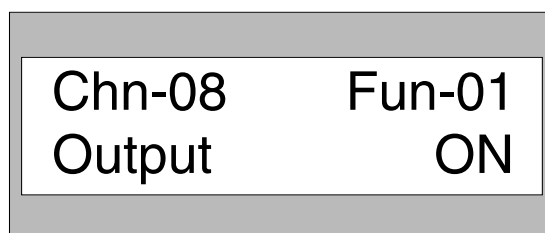
1. Enter Diagnostic Mode

The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Actuate the Top Cover Interlock Switch, the Front Cover Interlock Switch, and the Compiler Cover Interlock Switch.
3. Select a HCS related Output Test from the table below.
4. Use the Control Panel keys to enter the Chain number of the test.
5. Press Function Key [1] to switch the cursor from Chn and Fun.
6. Use the Control Panel keys to enter the Fun number of the test.
7. Press Function Key [1] to start the Output test.

The LCD displays the *Chn* - *Fun* number of the test, *Output*, and *ON* to indicate the test has started.

The output component under test should click, switch on, or start running.



SER877X

8. Press Function Key [0] to stop the Output Test.
9. Press [1] to restart the test if necessary.

Output Tests for the HCS

NOTE

The Top Cover Interlock Switch, the Front Cover Interlock Switch, and the Compiler Cover Interlock Switch must all be actuated before Output Tests will run.

Chain (Routine)	Function (Subroutine)	Switches on the...	Comments
14	50	IN Gate Solenoid - Pull	Opens IN Gate
14	51	IN Gate Solenoid - Push	Closes IN Gate
14	52	Transport Motor	
14	53	Tamper Motor: tamper to front	
14	54	Tamper Motor: tamper to rear	
14	55	Compiler Tray Up/Down Solenoid	

Output Tests for the HCS continued

Chain (Routine)	Function (Subroutine)	Switches on the...	Comments
14	56	End Wall Motor - Forward	
14	57	End Wall Motor - Reverse	
14	58	Stapler Transport Motor - Move to front	
14	59	Stapler Transport Motor - Move to rear	
14	60	Stapler Head Motor	
14	61	Eject Clamp and Offset Motor - CW	Clamp
14	62	Eject Clamp and Offset Motor - CCW	Offset
14	63	Eject Motor - Forward at Low Speed	
14	64	Eject Motor - Forward at High Speed	
14	65	Eject Motor - Reverse	
14	66	Set Clamp Motor	
14	67	Stacker Elevator Motor - (lower)	
14	68	Stacker Elevator Motor - (raise)	
14	69	Tray 1 Motor - CW	
14	70	Tray 1 Motor - CCW	
14	71	Tray 2 Motor - CW	
14	72	Tray 2 Motor - CCW	
14	73	Tray 3 Motor - CW	
14	74	Tray 3 Motor - CCW	
14	75	Unload While Running LED	

Running an Input Test (H/L)

Use this Diagnostic routine to check the digital signal level (High or Low) from a High Capacity Stacker sensor. This test tells you whether or not a sensor is working correctly and is sending a signal to the MCU PWB.

1. Enter Diagnostic Mode

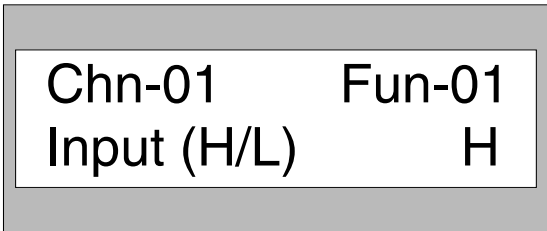
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select an HCS related Input Test (H/L) from the table below.
3. Use the Control Panel keys to enter the Chain number of the test.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the test.
6. Press Function Key [1] to start the Input test.

The LCD displays the *Chn* - *Fun* number of the test, *Input (H/L)*, and *H* or *L* to indicate the status of the sensor at that moment.

7. Watch the status field as you manually actuate the sensor.

The status field should change from either H to L or L to H as you manually actuate and deactuate the sensor.



Chn-01 Fun-01
Input (H/L) H

SER878X

8. When you are finished with this test, switch off printer main power to exit Diagnostic Mode.

Input Test (H/L) for the HCS

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
12	1	Transport Entrance Sensor	H = Paper sensed L = No paper sensed
12	2	Transport Exit Sensor	H = Paper sensed L = No paper sensed
12	3	Compiler Tray Exit Sensor	H = Paper sensed L = No paper sensed
12	4	Tamper Home Sensor	H = Home position L = Off home position
12	5	Compiler Paper Sensor	H = Paper sensed L = No paper sensed

Input Test (H/L) for the HCS continued

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
12	6	Compiler Cover Safety Switch	H = Cover closed L = Cover open
12	7	Top Cover Interlock Switch	H = Cover open L = Cover closed
12	8	End Wall Open Sensor	H = Wall up L = Wall down
12	9	Stapler Front Corner Sensor	H = Front corner position L = Off front corner position
12	10	Stapler Front Edge Sensor	H = Front edge position L = Off front edge position
12	11	Stapler Rear Edge Sensor	H = Rear edge position L = Off rear edge position
12	12	Stapler Head Home Sensor (internal to Stapler Assembly)	H = Home position L = Off Home position
12	13	Stapler Ready Sensor (internal to Stapler Assembly)	H = Not ready L = Ready
12	14	Low Staple Switch (internal to Stapler Assembly)	H = Staple level low L = Staple level normal
12	15	Cartridge Set Switch (internal to Stapler Assembly)	H = Cartridge in place L = Cartridge not in place
12	16	Eject Clamp Sensor	H = Eject Clamp down L = Eject Clamp up
12	17	Set Clamp Home Sensor	H = Home position L = Off home position
12	18	Stacker Offset Home Sensor	H = Off home position L = Home position
12	19	Top Tray Paper Sensor	H = Paper sensed L = No paper sensed

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
12	20	Middle Tray Paper Sensor	H = Paper sensed L = No paper sensed
12	21	Bottom Tray Paper Sensor	H = Paper sensed L = No paper sensed
12	22	Top Tray Half Sensor	H = Paper sensed L = No paper sensed
12	23	Middle Tray Half Sensor	H = Paper sensed L = No paper sensed
12	24	Bottom Tray Half Sensor	H = Paper sensed L = No paper sensed
12	25	Top Tray Full Sensor	H = Paper sensed L = No paper sensed
12	26	Middle Tray Full Sensor	H = Paper sensed L = No paper sensed
12	27	Bottom Tray Full Sensor	H = Paper sensed L = No paper sensed
12	28	Stacker Tray ID Sensor	H = Not actuated L = Actuated
12	29	Stacker Upper Limit Switch	H = Actuated L = Not actuated
12	30	Stacker Lower Limit Switch	H = Actuated L = Not actuated
12	31	Stacker Lower Safety Switch	H = Actuated L = Not actuated

Input Test (H/L) for the HCS continued

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
12	29	Stacker Upper Limit Switch	H = Actuated L = Not actuated
12	30	Stacker Lower Limit Switch	H = Actuated L = Not actuated
12	31	Stacker Lower Safety Switch	H = Actuated L = Not actuated
12	32	Unload While Running Switch	H = Actuated L = Not actuated
12	33	Front Cover Interlock Switch	H = Not actuated L = Actuated
12	34	IN Gate Interlock Switch	H = Not actuated L = Actuated
12	35	Transport Interlock Switch	H = Not actuated L = Actuated
12	36	Finisher Interlock Switch	H = Not actuated L = Actuated
12	37	Top Tray Upper Limit Switch	H = Actuated L = Not actuated
12	38	Middle Tray Upper Limit Switch	H = Actuated L = Not actuated
12	39	Bottom Tray Upper Limit Switch	H = Actuated L = Not actuated
12	40	Top Tray Lower Limit Switch	H = Actuated L = Not actuated
12	41	Middle Tray Lower Limit Switch	H = Actuated L = Not actuated
12	42	Bottom Tray Lower Limit Switch	H = Actuated L = Not actuated

Chain (Routine)	Function (Subroutine)	Signal from the...	Comments
12	43	Stack Height Sensor	H = Actuated L = Not actuated
12	44	IOT Full Paper Sensor	H = Actuated L = Not actuated
12	45	Top Tray Safety Switch & Middle Tray Safety Switch	H = Actuated L = Not actuated
12	46	Compiler Cover Interlock Switch	H = Not actuated L = Actuated

Running a Test Print to the HCS

Use this diagnostic routine to print a test pattern and have the printer deliver it to the HCS for stapling and offsetting.

To generate a Test Print

1. Enter Diagnostic Mode

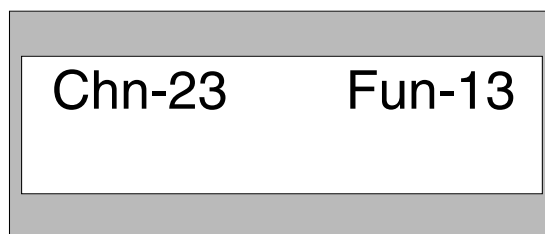
The printer is in Diagnostic Mode and the LCD displays Chn-00 Fun-00.

2. Select a specific output destination from the table on the next page.
3. Use the Control Panel keys to enter the Chain number of the output destination.
4. Press Function Key [1] to switch the cursor from Chn and Fun.
5. Use the Control Panel keys to enter the Fun number of the output destination.
6. Press Function Key [1].
7. Use the Control Panel keys to enter the output destination NV number.
8. Press Function Key [1] to write the output destination to NVRAM.
9. Press Function Key [0] to exit the output destination routine.
10. Select a specific Test Print pattern from the table on the next page.

See Section 8 of the Base Engine Technical Manual for a complete listing of all available test print routines.

11. Use the Control Panel keys to enter the Chain number of the test.
12. Press Function Key [1] to switch the cursor from Chn and Fun.
13. Use the Control Panel keys to enter the Fun number of the test.
14. Press Function Key [1] to generate a Test Print.

The printer generates test prints until you stop the routine.



SER881X

To stop Test Print

1. Press Function Key [0].

Test Print tables

Chain (Routine)	Function (Subroutine)	Tray, Mode, and Test Pattern Type
23	10	Tray 1 Simplex Mode: Blank sheet of paper
23	11	Tray 1 Simplex Mode: Solid black up to the white margins
23	13	Tray 1 Simplex Mode: 4 dot grid pattern

Chain (Routine)	Function (Subroutine)	Test Print Output Destination NV number = test print destination
23	75	Test Print Destination (default = 0) 0 = Face Down Tray 1= Face Up Tray 2= Mailbox: sorter mode 3= Mailbox: mailbox mode 4= HCS Top Tray 5= HCS Middle Tray 6= HCS Bottom Tray
23	77	Test Print HCS Stapler Selection (default = 1) 0 = Do not staple 1= Front staple 2= Rear staple 3= Dual staple
23	78	Test Print HCS Compiler Stack Size Limit (default = 10) 2 ~ 50
23	79	Test Print HCS Offset Selection (default = 0) 0 = Front offset 1= Rear offset 2= Alternate Front & Rear offset

Section 6 - Removal and Replacement Procedures (RRP)

This section contains the removal and replacement procedures for major parts and subsystems within the printer High Capacity Stacker.

Preparation

Before you begin any Removal and Replacement Procedure:

1. Switch OFF the printer power.
2. Remove the HCS from the base printer (RRP 6.1).
3. Wear an electrostatic discharge wrist strap to protect sensitive HCS PWBs from damage.

Work Notes

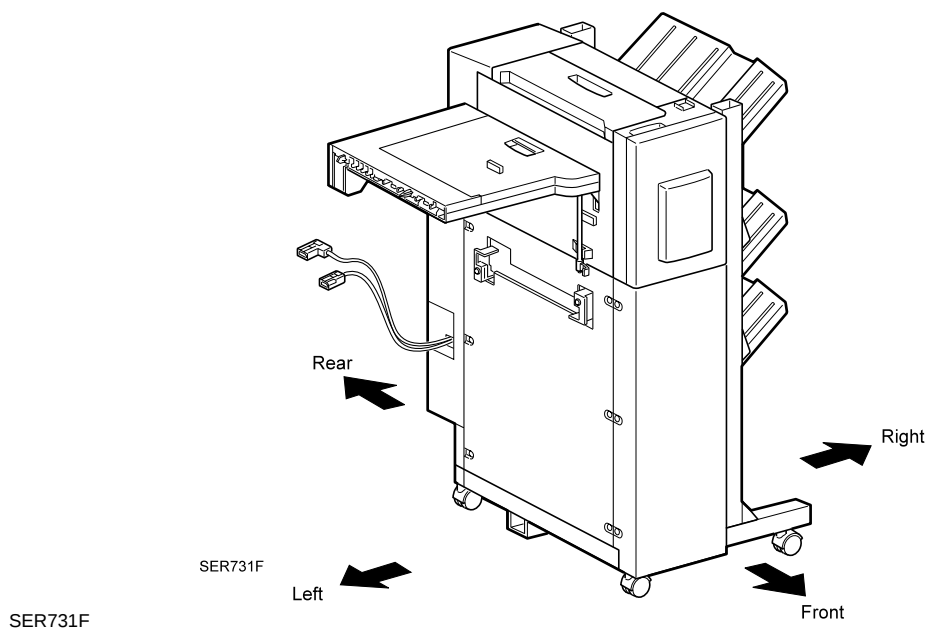
NOTE

Names of parts that appear in the RRP's may not be exactly the same as the names appear in the parts list. For example, an RRP for a MSI Tray Assembly may appear on the parts list as Tray Assembly - MSI.

Always reinstall the correct type and size screws. Using the wrong screw can damage tapped holes. Do not use excessive force to either remove or install a part.

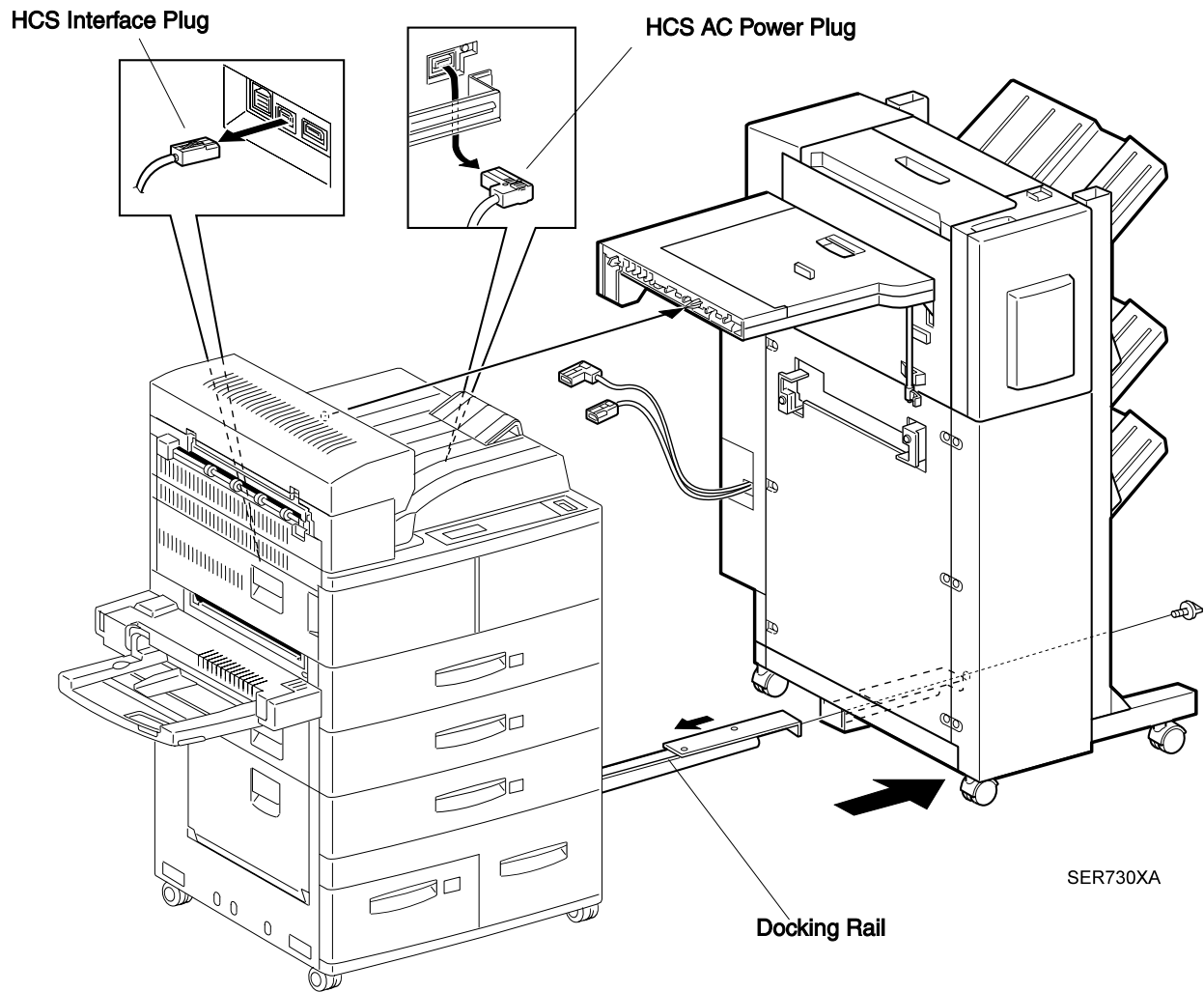
Notations in the RRP text

- Locations, such as R or right, given in the RRP's assume you are facing the printer console panel.



- The notation "(See RRP X.Y)" in a RRP step, directs you to another RRP to see how to perform a related or pre-requisite procedure.
- The notation "(Figure X.Y)" points to the illustration that corresponds to the RRP you are performing.
- The notation "(PLX)" indicates that this component is listed in the PLX parts list.
- Arrows in an illustration show direction of movement when removing a component.
- Slashes in a part name indicate that numerous components share the same heading and function. For example, "Gears In/Feed/Out" refers to Gear In, Gear Feed, and Gear Out.

RRP 6.1 High Capacity Stacker



SER730XA

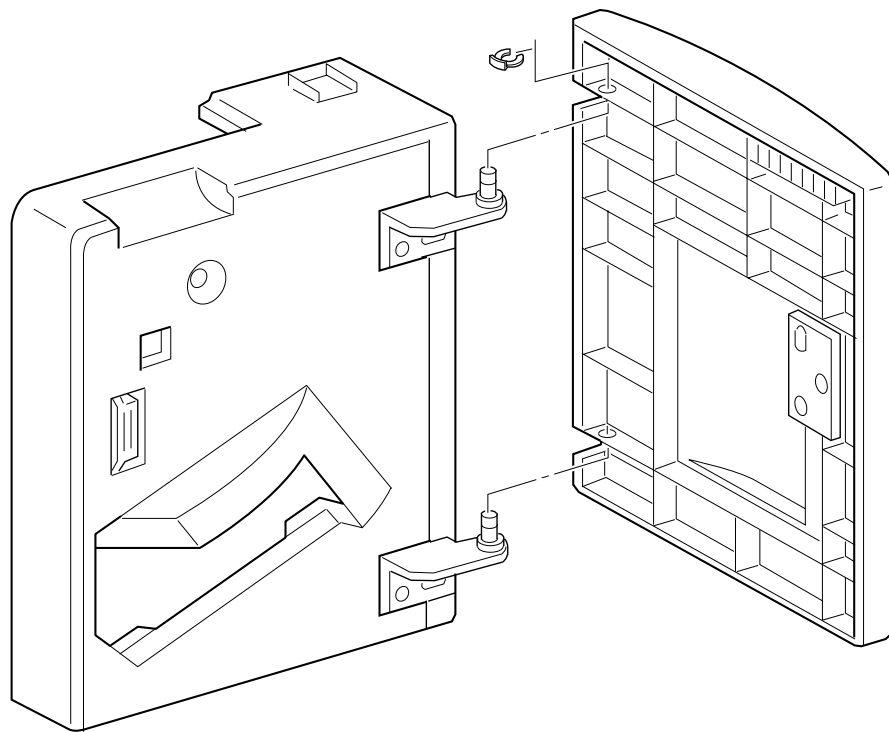
Removal

1. Switch off main printer power.
2. Slide the HCS away from the printer.
3. Remove the screw from the end of the Docking Rail, and remove the Docking Rail.
4. Disconnect the HCS interface cable from the rear of the printer, and disconnect the HCS AC power cord from the right side of the printer.
5. Roll the HCS away from the printer.

Replacement

1. Move the HCS a few feet away from the printer.
2. Reinstall the Docking Rail under the printer.
3. Reconnect the HCS interface cable to the rear of the printer, and reconnect the HCS AC power cord to the right side of the printer.
4. Use one screw to secure the Docking Rail.
5. Push the HCS against the printer, making sure the locating pin on the Transport lines up with the locating hole on the DOC HCS.

RRP 6.2 Front Cover Assembly (RRP 17.2)



SER744FA

SER744FA

RRP 6.2 Front Cover Assembly (RRP 17.2)

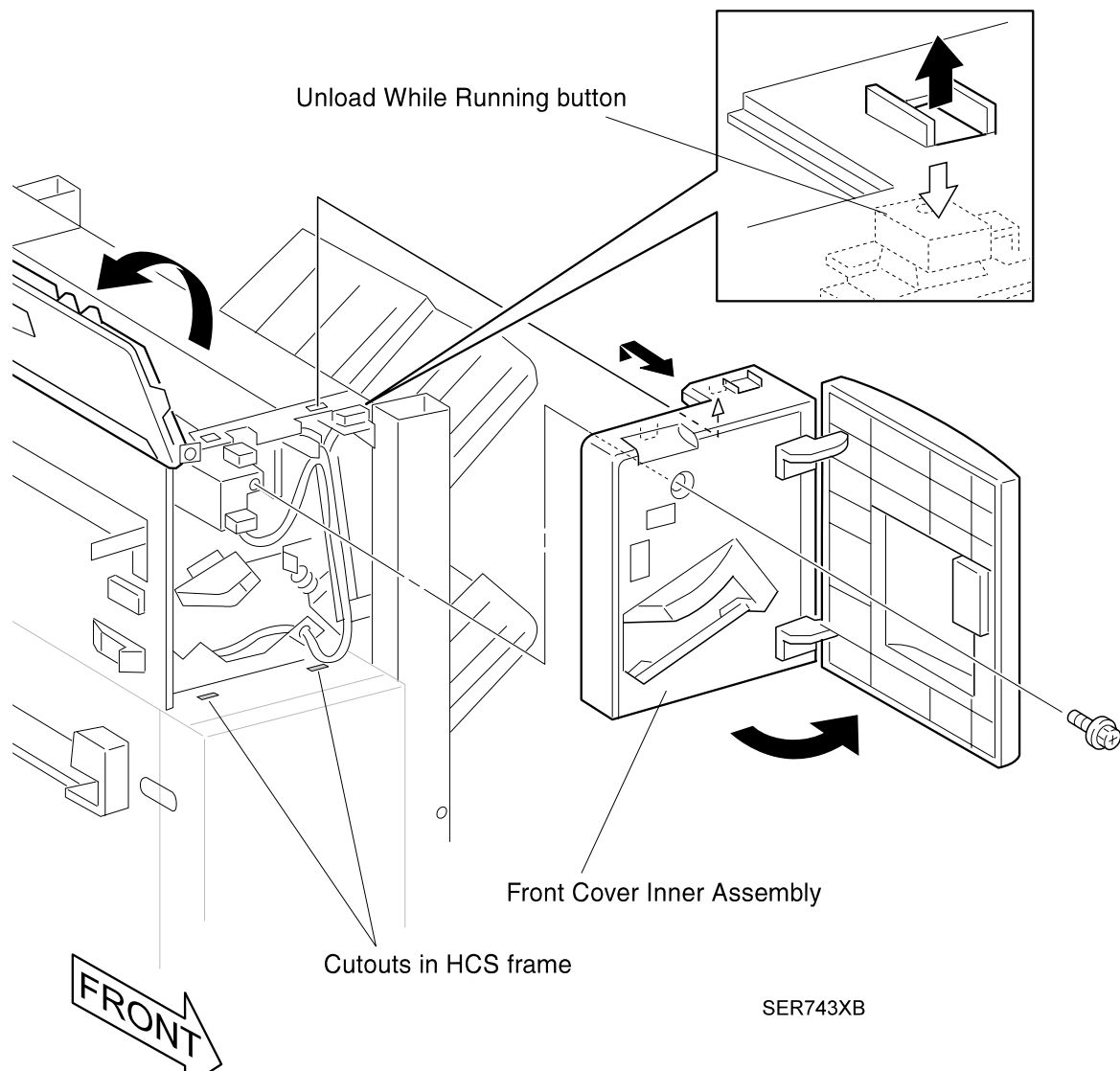
Removal

1. Open the Front Cover.
2. Remove the E ring on the top hinge that secures the Front Cover to the Front Cover Inner Assembly.
3. Lift and remove the Front Cover Assembly.

Replacement

1. Reinstall the Front Cover Assembly by sliding the two hinges that are located on the Inner Assembly, into the two holes in the Front Cover Assembly.
2. Use one E ring on the top hinge to secure the Front Cover Assembly to the Front Cover Inner Assembly.
3. Close the Front Cover.

RRP 6.3 Front Cover Inner Assembly (PL17.2)



RRP 6.3 Front Cover Inner Assembly (PL17.2)

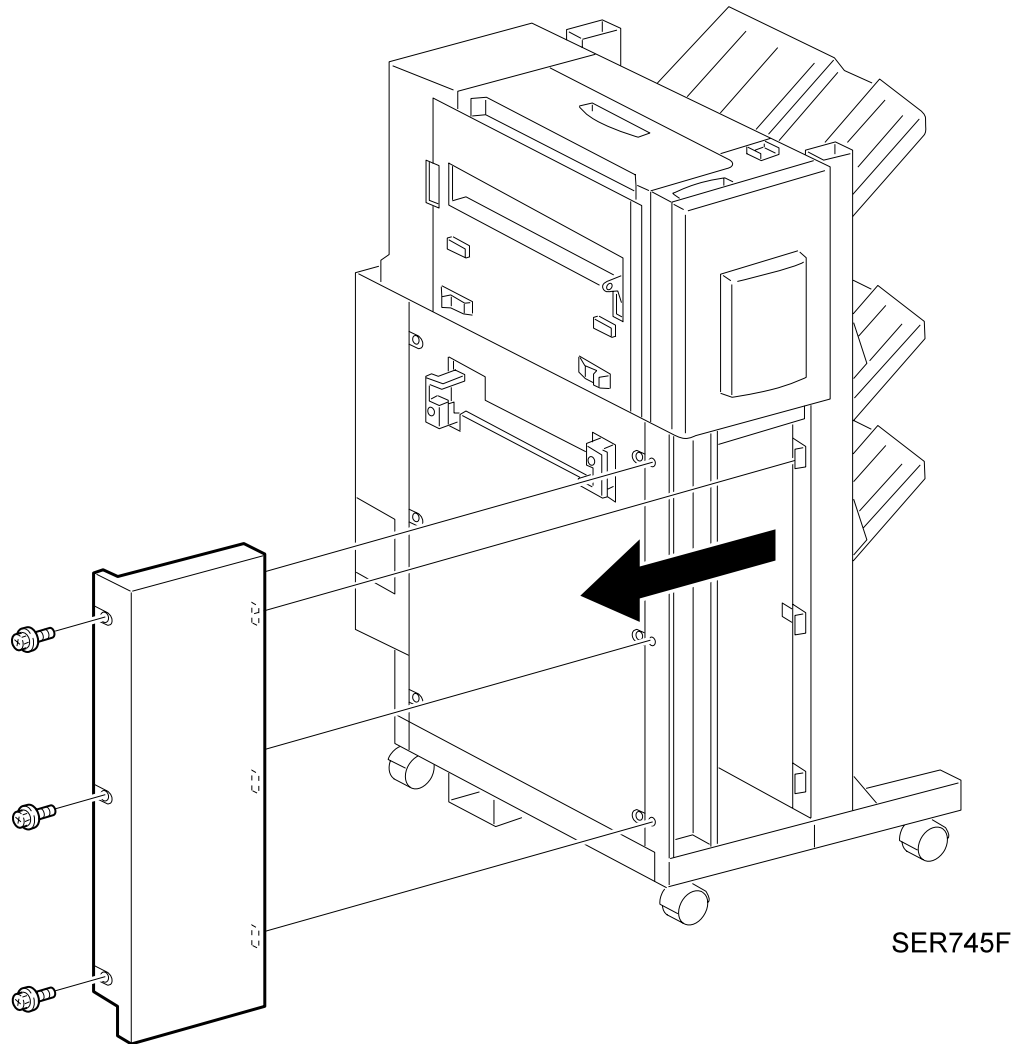
Removal

1. Open the Top Cover.
2. Open the Front Cover Assembly.
3. Remove the screw securing the Front Cover Inner Assembly to the HCS frame.
4. Press the *Unload While Run* button as you lift the Inner Assembly up and off of the HCS frame.
5. Remove the Front Cover Assembly (RRP 6.2).

Replacement

1. Reinstall the Front Cover Assembly (RRP 6.2).
2. Reinstall the Front Cover Inner Assembly by first inserting the two tabs that are located at the bottom of the Assembly into the cutouts in the HCS frame.
3. Press the *Unload While Run* button as you press the top of the Inner Assembly against the HCS frame.
4. Reposition the Inner Assembly so when you press and release the *Unload While Run* button, the button moves freely.
5. Use one screw to secure the Assembly to the HCS frame.
6. Close the Front Cover Assembly.
7. Close the Top Cover.

RRP 6.4 Front Low Cover (PL 17.2)



SER745F

RRP 6.4 Front Low Cover (PL 17.2)

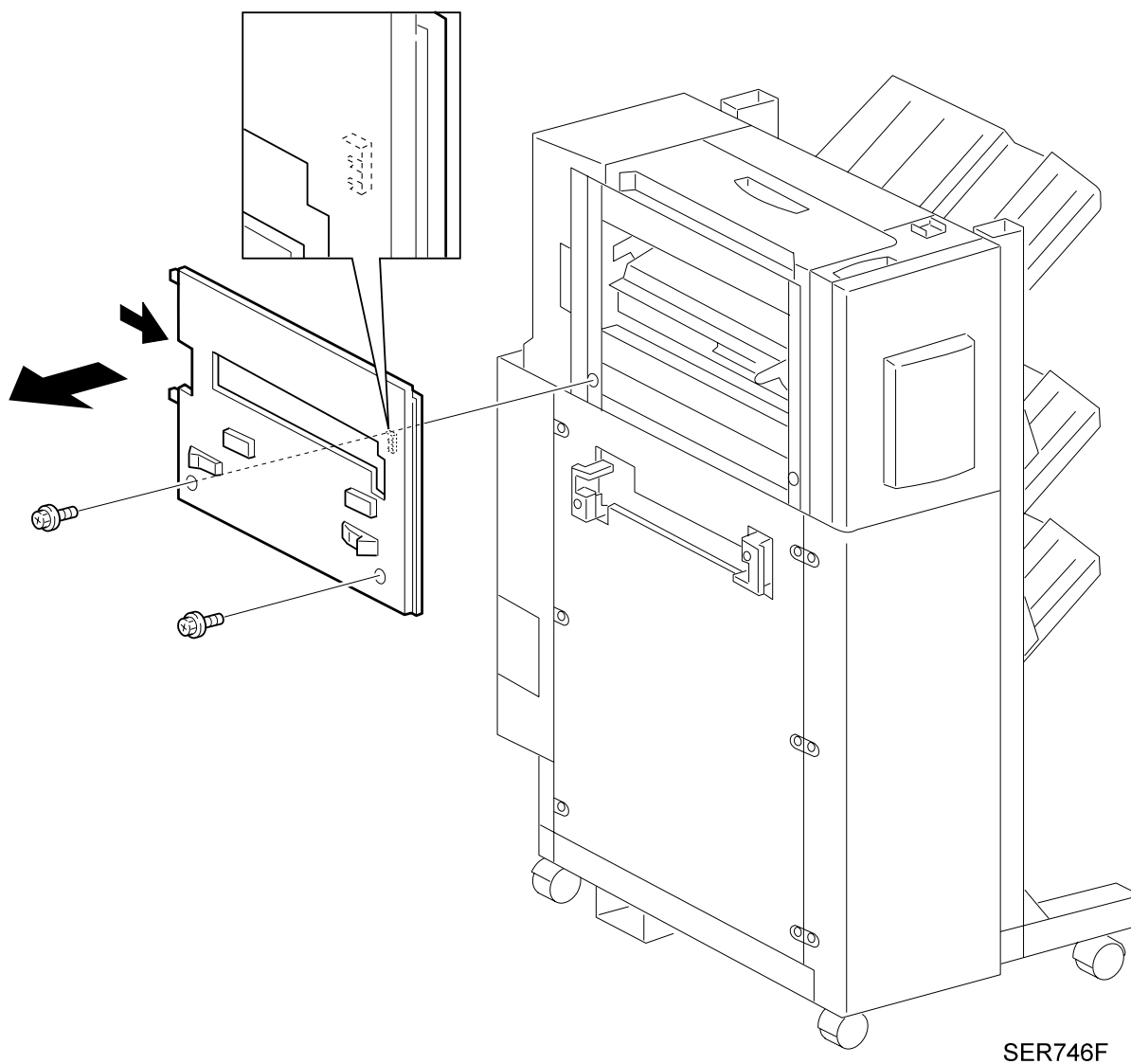
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the three screws securing the Front Low Cover to the HCS frame.
3. Pull the Cover to the left and remove it from the frame.

Replacement

1. Position the Cover as shown in the figure.
2. Slide the Cover onto the frame so the tabs on the frame fit into the rectangular cutouts in the Cover.
3. Press the Cover against the frame.
4. Use 3 screws to secure the Cover to the frame.
5. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.5 L/H Cover (PL 17.2)



SER746F

RRP 6.5 L/H Cover (PL 17.2)

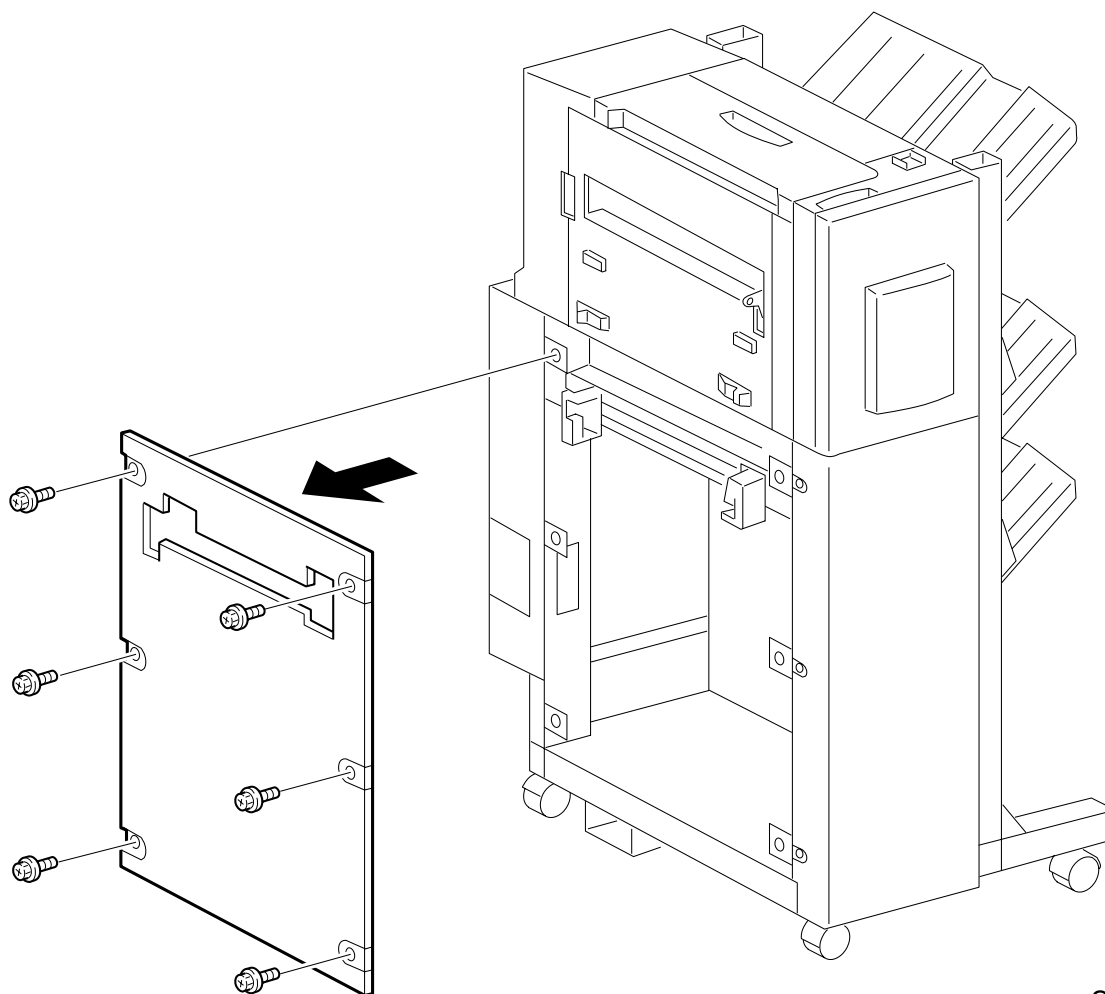
Removal

1. Remove the Transport Assembly (RRP 6.85).
2. Remove the Rear Cover (RRP 6.8).
3. Remove the two screws securing the L/H Cover to the HCS frame.
4. Remove the L/H Cover.

Replacement

1. Reinstall the L/H Cover by first sliding the front lip of the Cover under the Front Cover.
2. Press the L/H Cover against the HCS frame, and reposition as necessary so the two screw holes in the Cover line up with the two screw holes in the frame.
3. Use two screws to secure the L/H Cover to the HCS frame.
4. Reinstall the Rear Cover (RRP 6.8).
5. Reinstall the Transport Assembly (RRP 6.85).

RRP 6.6 L/H Cover Low (PL 17.2)



SER739F

SER739F

RRP 6.6 L/H Cover Low (PL 17.2)

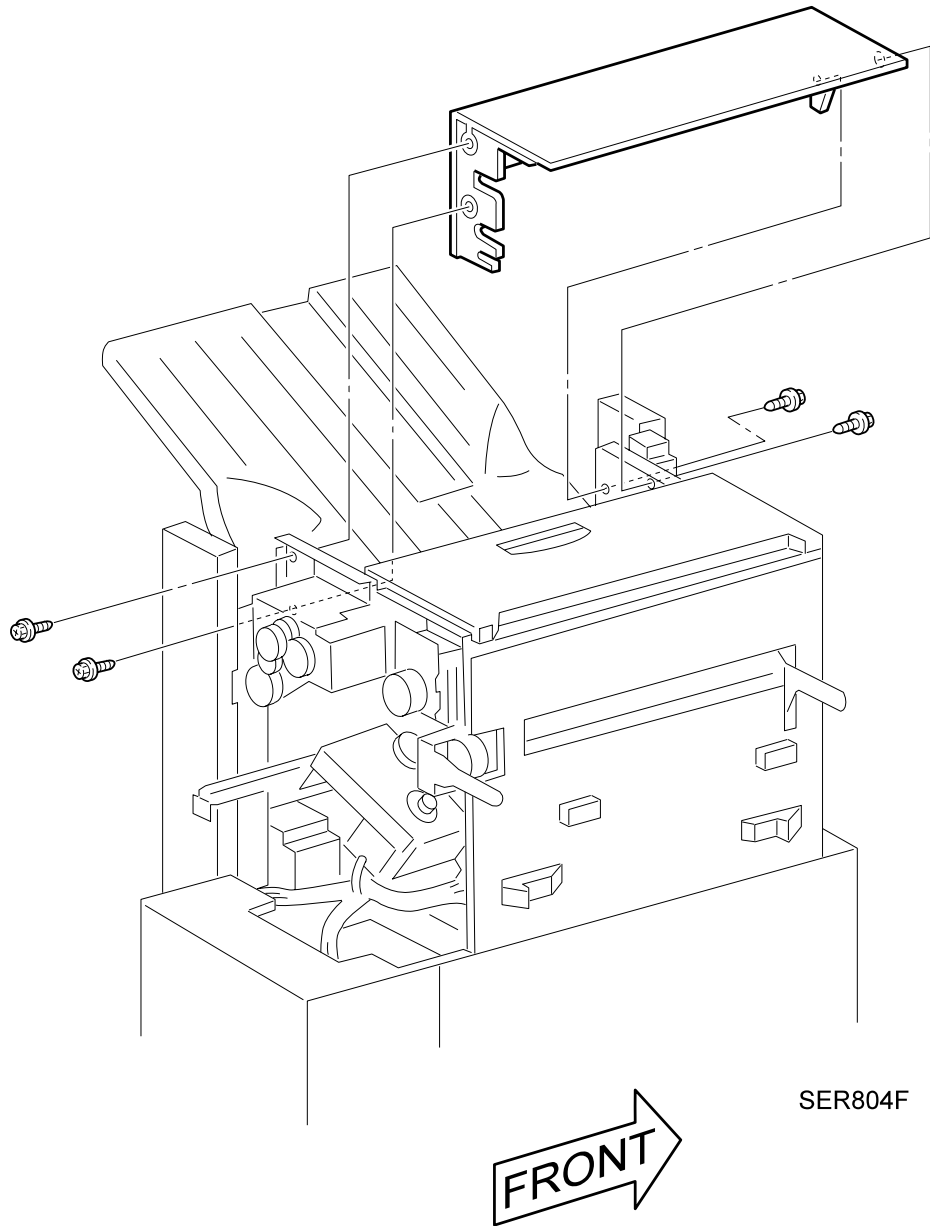
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Transport Assembly (RRP 6.85).
3. Remove the six screws securing the L/H Cover Low from the HCS frame, and remove the Cover.

Replacement

1. Reinstall the L/H Cover Low onto the HCS frame.
2. Use six screws to secure the Cover to the frame.
3. Reinstall the Transport Assembly (RRP 6.85).
4. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.7 Eject Cover (PL 17.3)



SER804F

RRP 6.7 Eject Cover (PL 17.3)

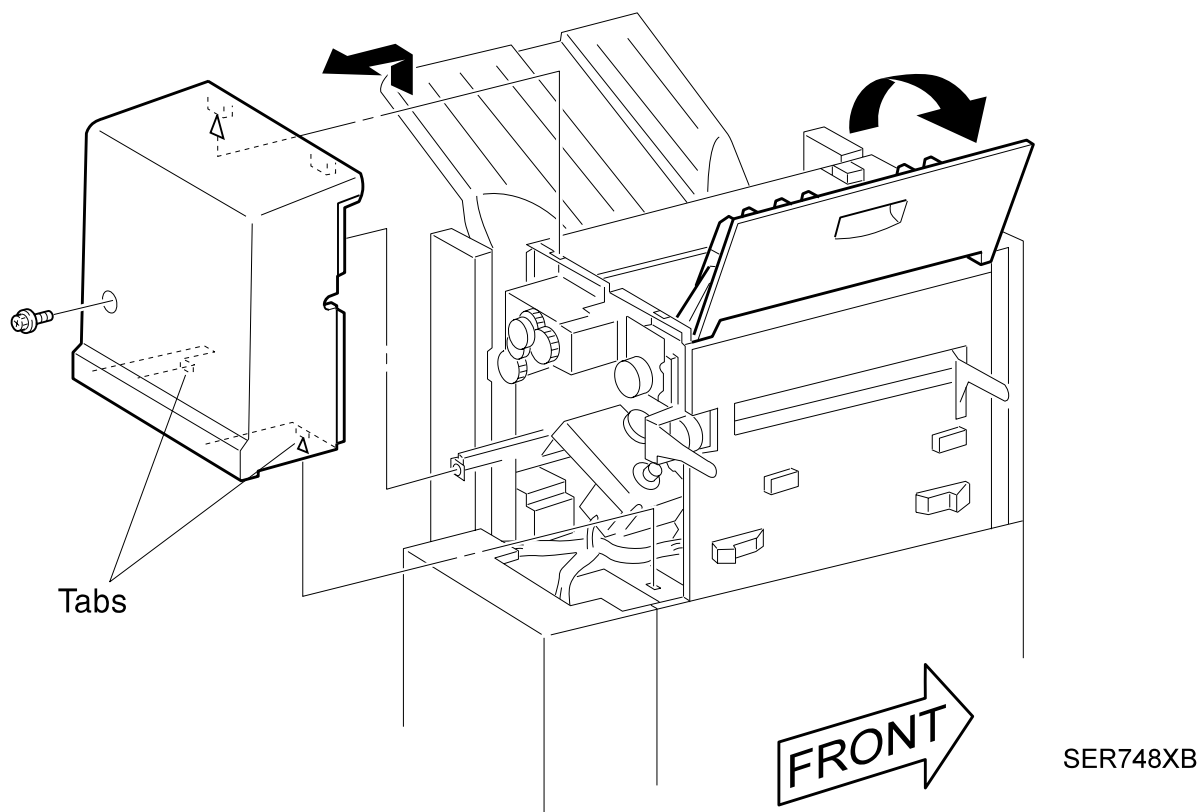
Removal

1. Remove the Rear Cover (RRP 6.8).
2. Remove the Front Cover Inner Assembly (RRP 6.3).
3. Open the Top Cover.
4. Remove the four screws securing the Eject Cover to the HCS frame, and remove the Cover.

Replacement

1. Position the Eject Cover as shown in the figure, and reinstall the Cover onto the HCS frame.
2. Align the four screw holes in the Cover with the four screw holes in the HCS frame.
3. Use four screws to secure the Eject Cover to the frame.
4. Reinstall the Front Cover Inner Assembly (RRP 6.3).
5. Reinstall the Rear Cover (RRP 6.8).

RRP 6.8 Rear Cover (PL 17.3)



SER748XB

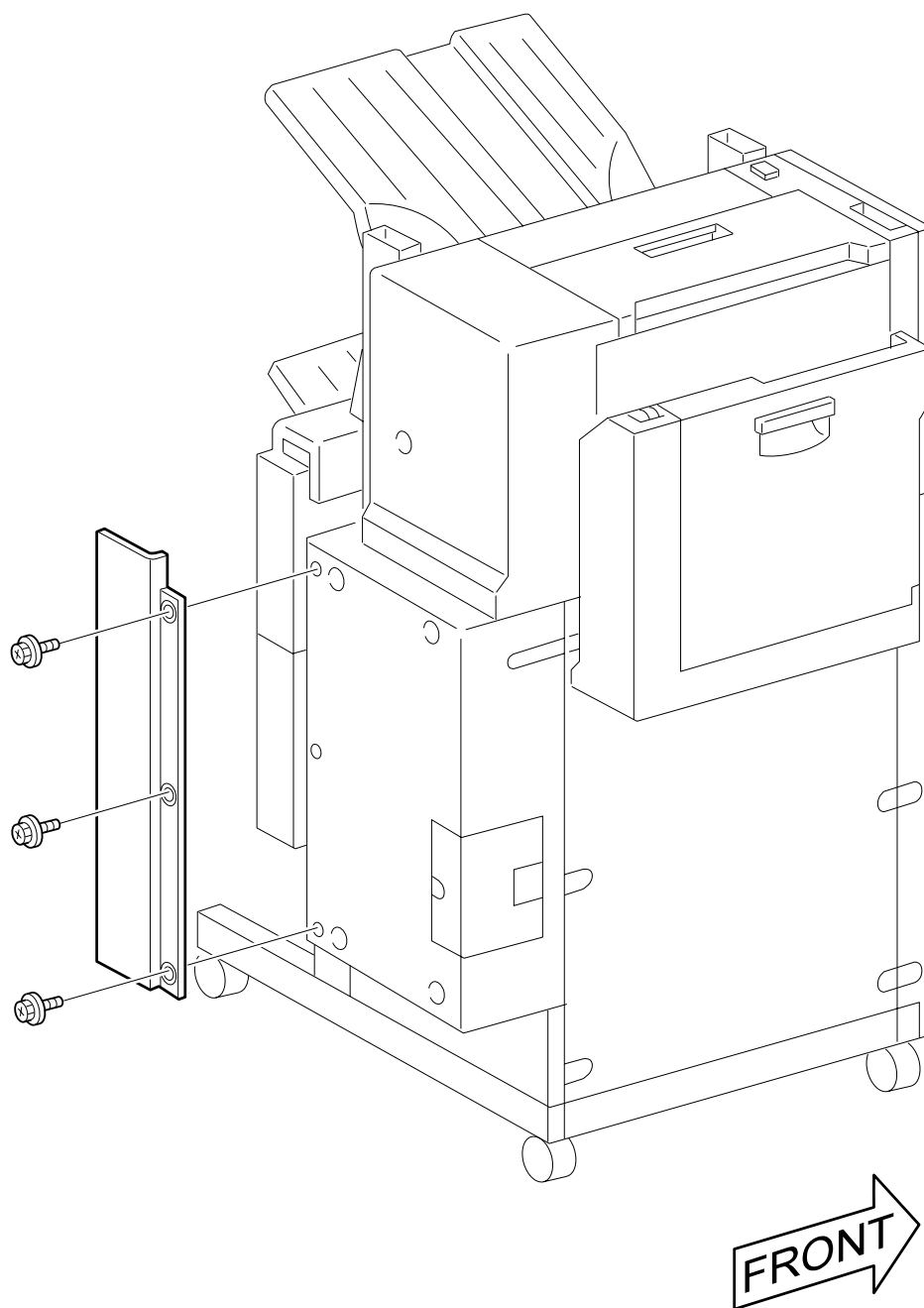
Removal

1. Open the Top Cover.
2. Remove the screw securing the Rear Cover to the HCS frame.
3. Lift the Cover and remove it from the frame.

Replacement

1. Open the Top Cover.
2. Reinstall the Rear Cover by first hooking the two tabs that are located at the top of the Cover, into the two cutouts in HCS frame.
3. Use one screw to secure the Rear Cover to the frame.

RRP 6.9 Harness Cover (PL 17.3)



SER749F

SER749F

RRP 6.9 Harness Cover (PL 17.3)

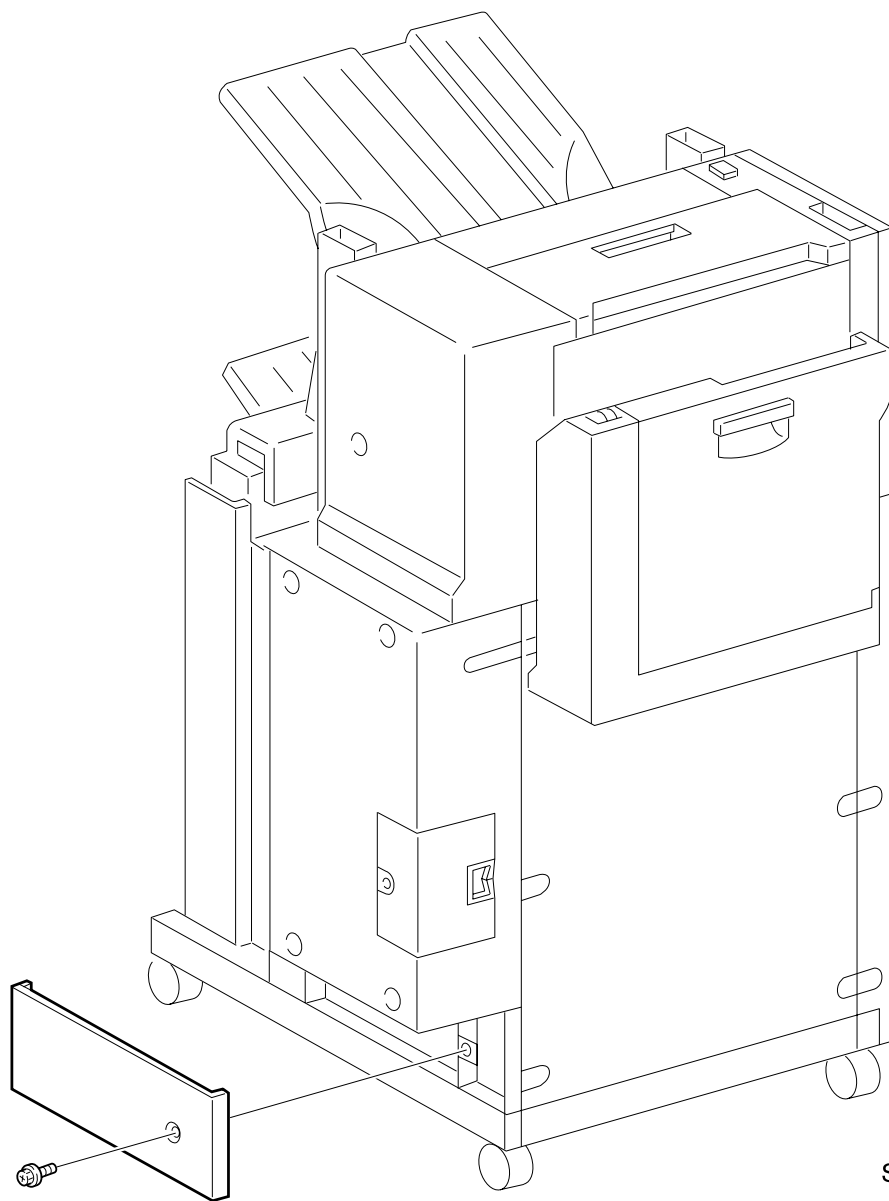
Removal

1. Remove the three screws securing the Harness Cover to the HCS frame.
2. Remove the Cover.

Replacement

1. Reinstall the Harness Cover as shown in the figure.
2. Use three screws to secure the Cover to the HCS frame.

RRP 6.10 Add Cover (PL 17.3)



SER750F

SER750F

RRP 6.10 Add Cover (PL 17.3)

Removal

1. Remove the screw that secure the Add Cover to the HCS frame.
2. Remove the Add Cover.

Replacement

1. Position the Add Cover as shown in the figure.
2. Slide the Cover onto the HCS frame so the tab on the frame fits into the rectangular cutout in the Cover.
3. Use one screw to secure the Cover to the HCS frame.

RRP 6.11 Finisher PWB Cover and Connector Cover (PL 17.3)

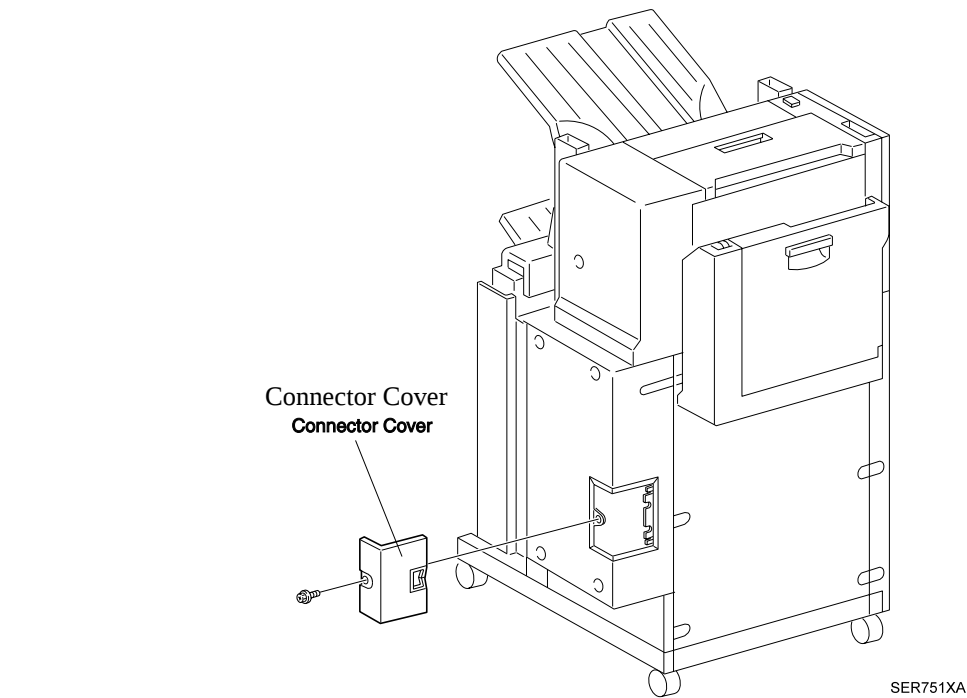


Figure 1

SER751XA

SER751XA

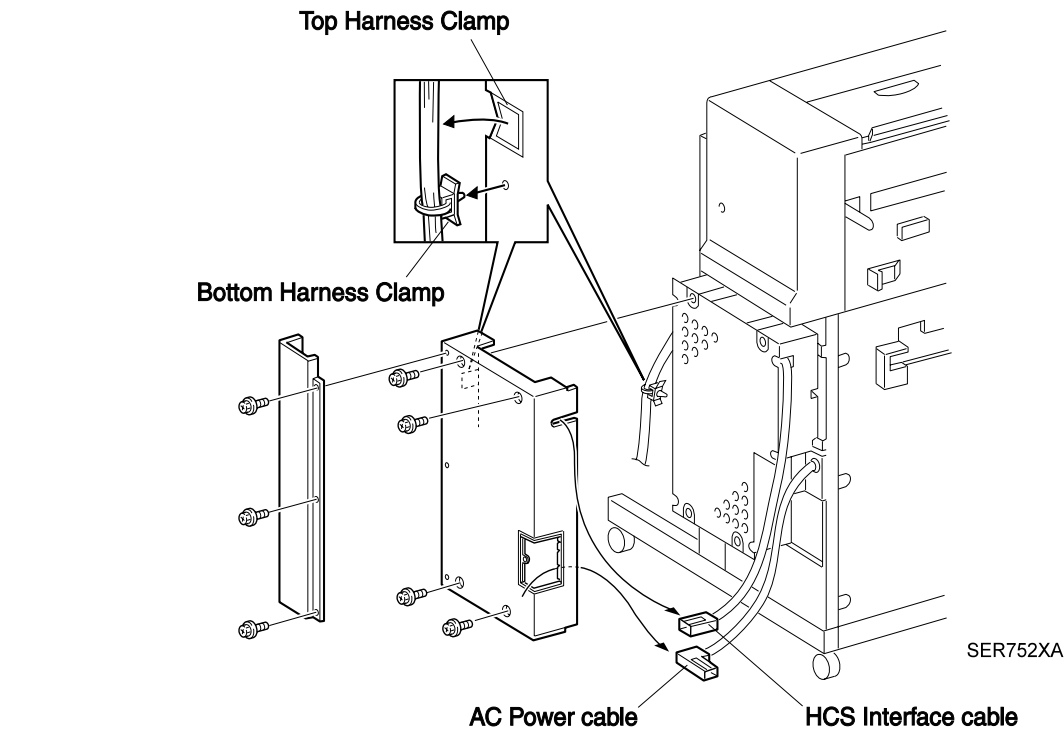


Figure 2

SER752XA

SER752XA

RRP 6.11 Finisher PWB Cover and Connector Cover (PL 17.3)

Removal

1. Remove the screw securing the Connector Cover and remove the Cover (Figure 1).
2. Remove the Harness Cover (RRP 6.9).
3. Remove the four screws securing the PWB Cover Assembly to the HCS frame, and pull the Cover away from the frame.
4. Free the wire harness from the top harness clamp (Figure 2).
5. Free the wire harness from the bottom harness clamp.
6. Remove the Finisher PWB Cover.

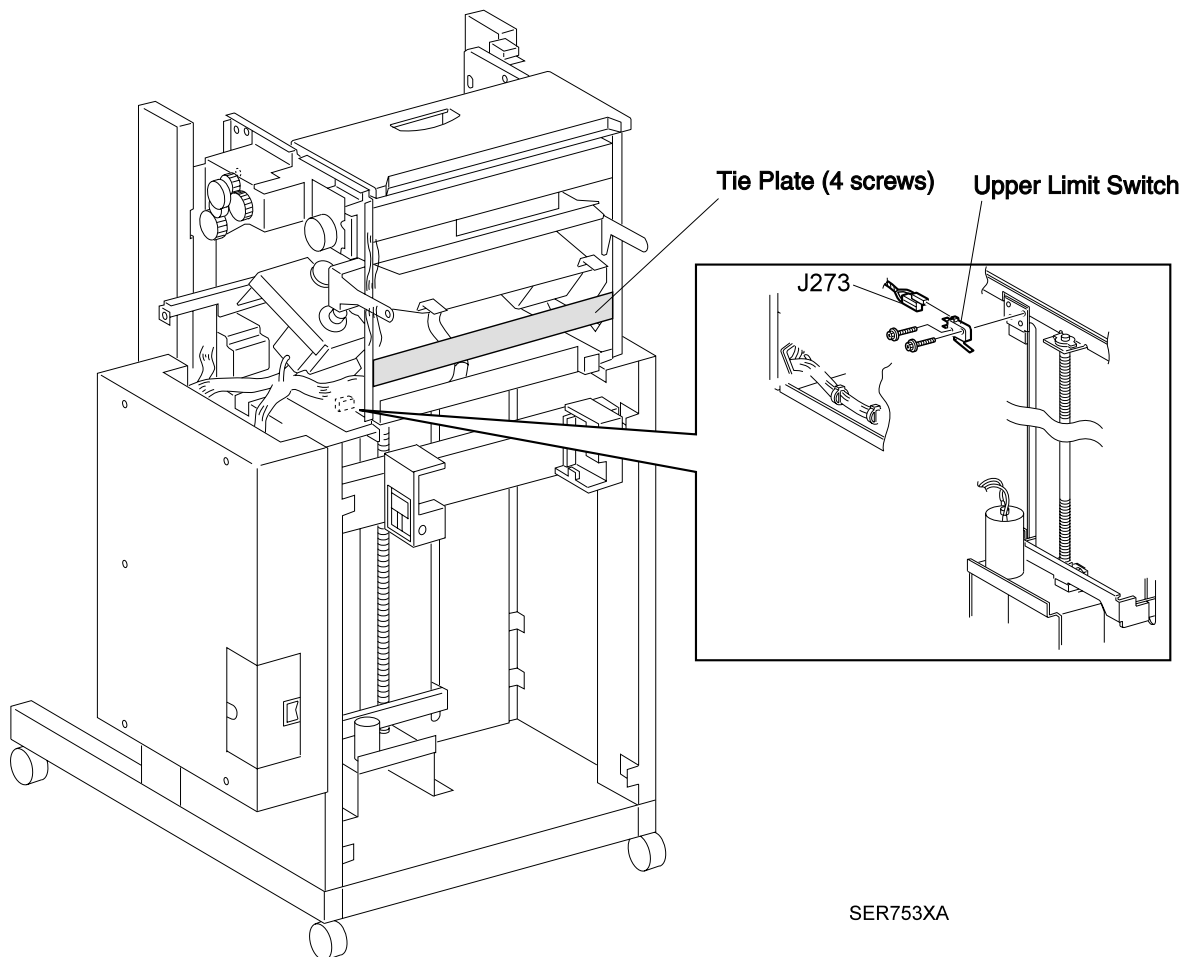
Replacement

1. Reinstall the Finisher PWB Cover onto the HCS frame (Figure 2).
2. Route the HCS Interface cable through the cutout at the top of the Cover.
3. Route the AC Power cable through the cutout at the bottom of the Cover.
4. Secure the top and bottom of the wire harness into the harness clamps.
5. Press the Finisher PWB Cover against the HCS frame.
6. Use four screws to secure the Cover to the frame.
7. Reinstall the Harness Cover (RRP 6.9).
8. Reinstall the Connector Cover by sliding the Cover onto the HCS frame so the tab on the frame fits into the rectangular cutout in the Cover.

Make sure you route the AC Power cable through the cutout in the Connector Cover.

9. Use one screw to secure the Cover to the frame.

RRP 6.12 Stacker Upper Limit Switch (PL17.4)



SER753XA

RRP 6.12 Stacker Upper Limit Switch (PL17.4)

Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the L/H Cover (RRP 6.5).
3. Remove the four screws securing the Tie Plate (PL19.2.20) to the HCS frame.

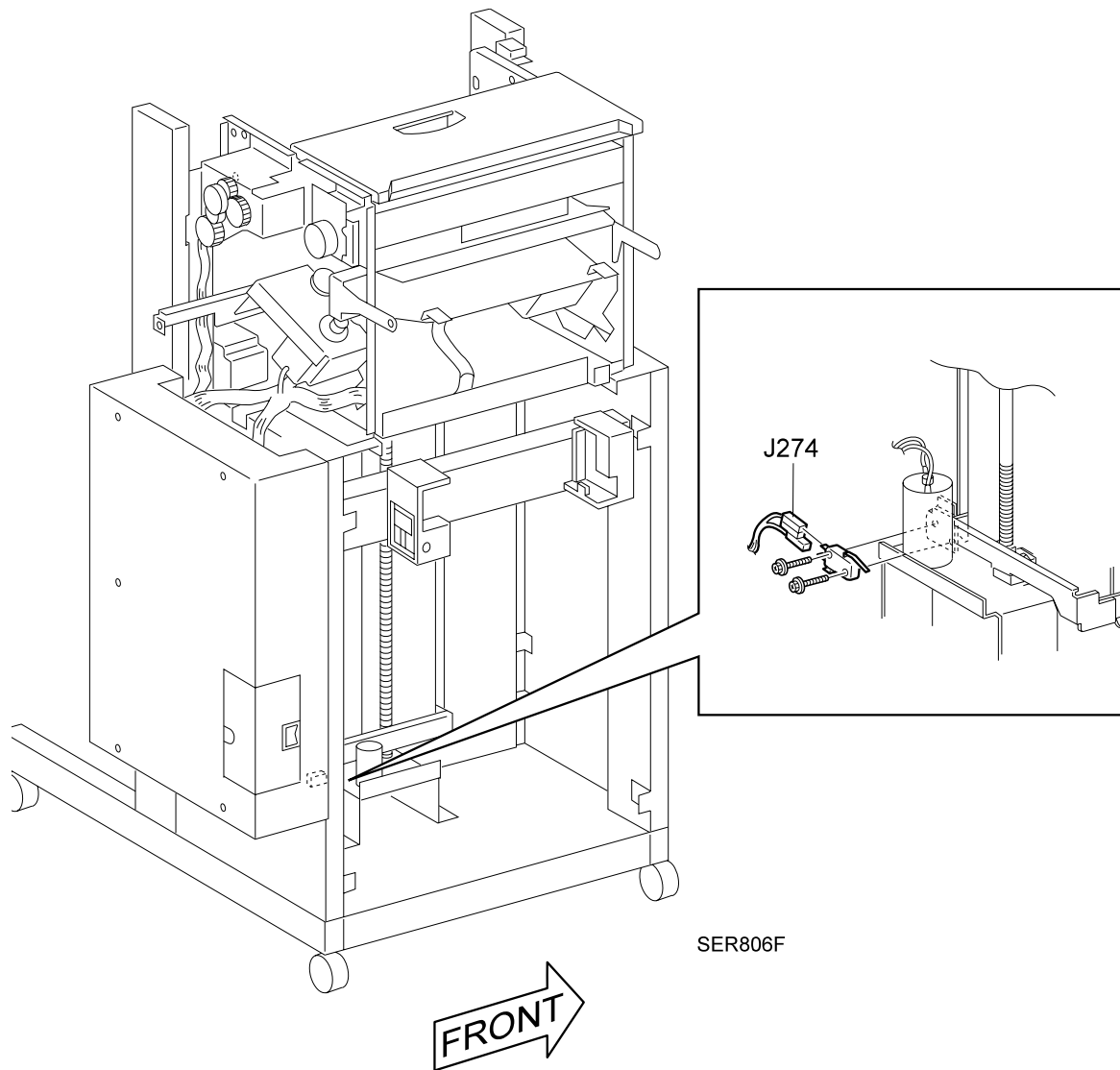
Removing the Tie Plate gives you easier access to the Upper Limit Switch.

4. Remove the two screws securing the Upper Limit Switch Cover, and remove the Cover.
5. Disconnect J273 from the Upper Limit Switch.
6. Remove the two screws securing the Upper Limit Switch to the HCS frame, and remove the Switch.

Replacement

1. Position the Upper Limit Switch as shown in the figure, and reinstall it onto the HCS frame.
2. Use two screws to secure the Switch to the frame.
3. Reconnect J273 to the Switch.
4. Reinstall the Switch Cover, and use two screws to secure it to the frame.
5. Reinstall the Tie Plate, flat side facing out, onto the HCS frame.
6. Use four screws to secure the Tie Plate to the frame.
7. Reinstall the L/H Cover (RRP 6.5).
8. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.13 Stacker Lower Limit Switch (PL17.4)



RRP 6.13 Stacker Lower Limit Switch (PL17.4)

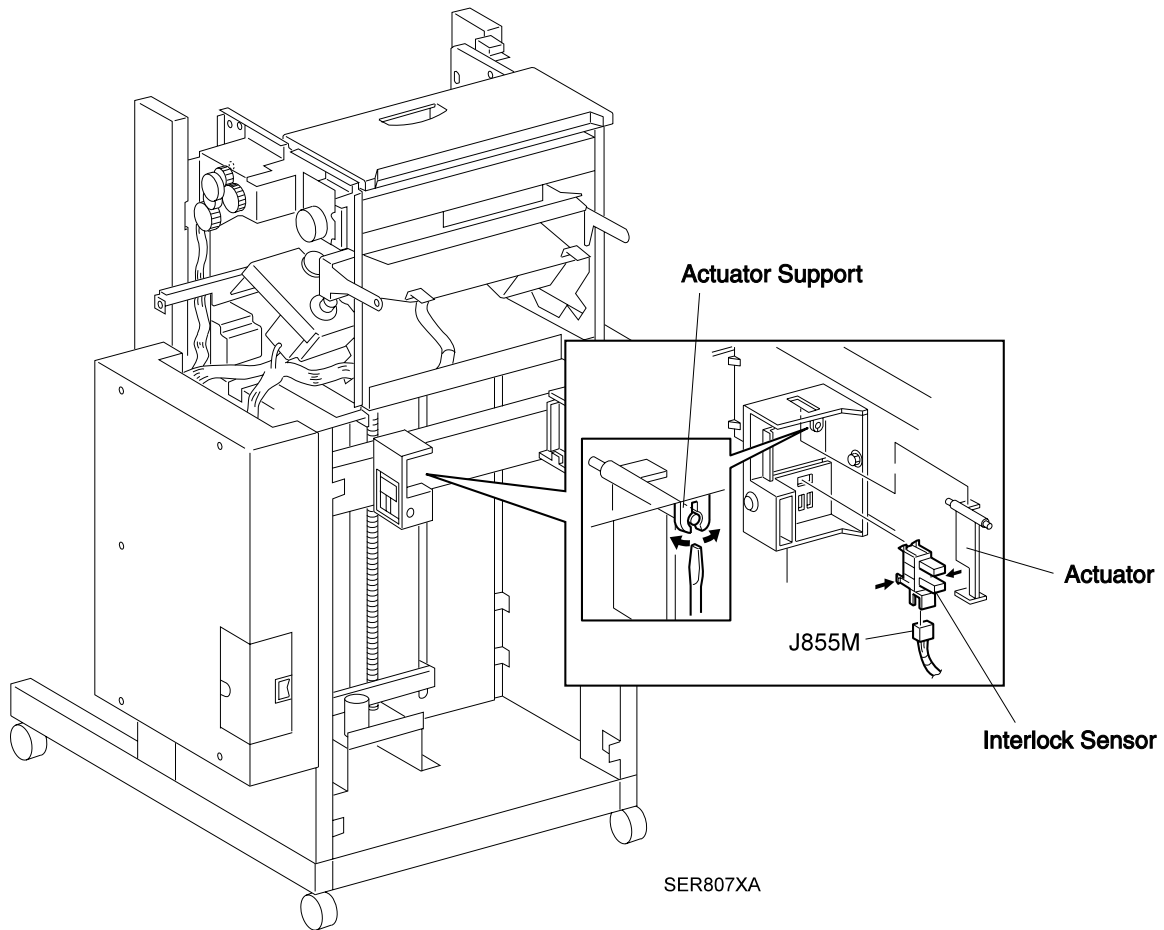
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the L/H Cover Low (RRP 6.6).
3. Disconnect J274 from the Lower Limit Switch.
4. Remove the two screws securing the Lower Limit Switch to the HCS frame, and remove the Switch.

Replacement

1. Position the Lower Limit Switch as shown in the figure, and reinstall it onto the HCS frame.
2. Use two screws to secure the Switch to the frame.
3. Reconnect J274 to the Switch.
4. Reinstall the L/H Cover Low (RRP 6.6).
5. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.14 Finisher Interlock Sensor and Actuator (PL17.4)



SER807XA

RRP 6.14 Finisher Interlock Sensor and Actuator (PL17.4)

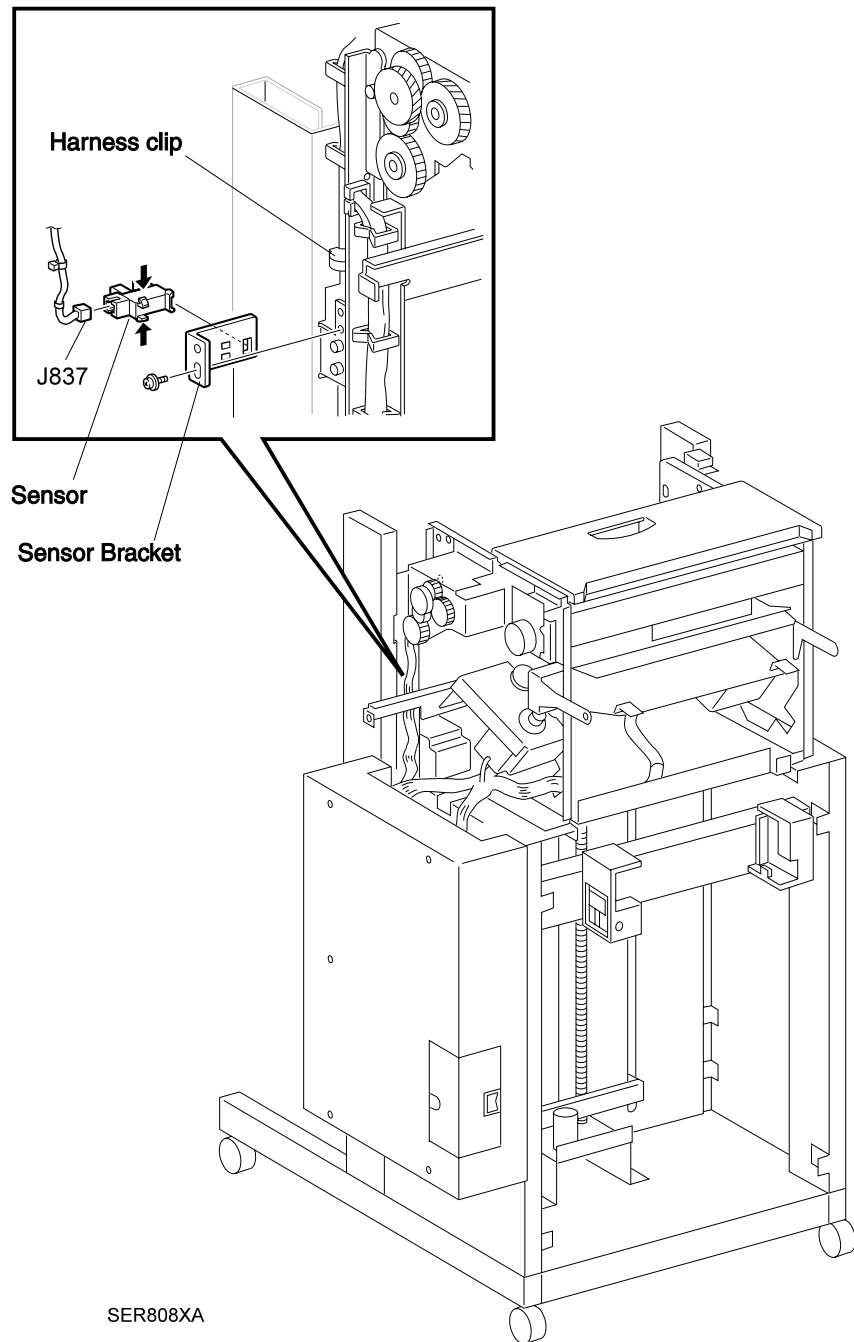
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the L/H Cover Low (RRP 6.6).
3. Release the latches securing the Finisher Interlock Sensor to the Docking Support, and remove the Sensor.
4. Disconnect J855M from the Sensor.
5. Use the flat blade of a screwdriver to spread the arms of the Actuator support, and remove the Actuator.

Replacement

1. Position the Actuator as shown in the figure.
2. Insert the inside Actuator pivot into the hole in the Docking Support.
3. Press the outside pivot into the arms of the Actuator support.
4. Reconnect J855M to the Interlock Sensor.
5. Push the Actuator out of the way while you reinstall the Sensor.
6. Position the Sensor as shown in the figure, and press the latches on the rear of the Sensor into the four holes in the Docking Support.
7. Rock the Actuator back and forth to make sure it moves freely between the arms of the Sensor.
8. Reinstall the L/H Cover Low (RRP 6.6).
9. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.15 Stacker Tray ID Sensor (PL 17.4)



SER808XA

RRP 6.15 Stacker Tray ID Sensor (PL 17.4)

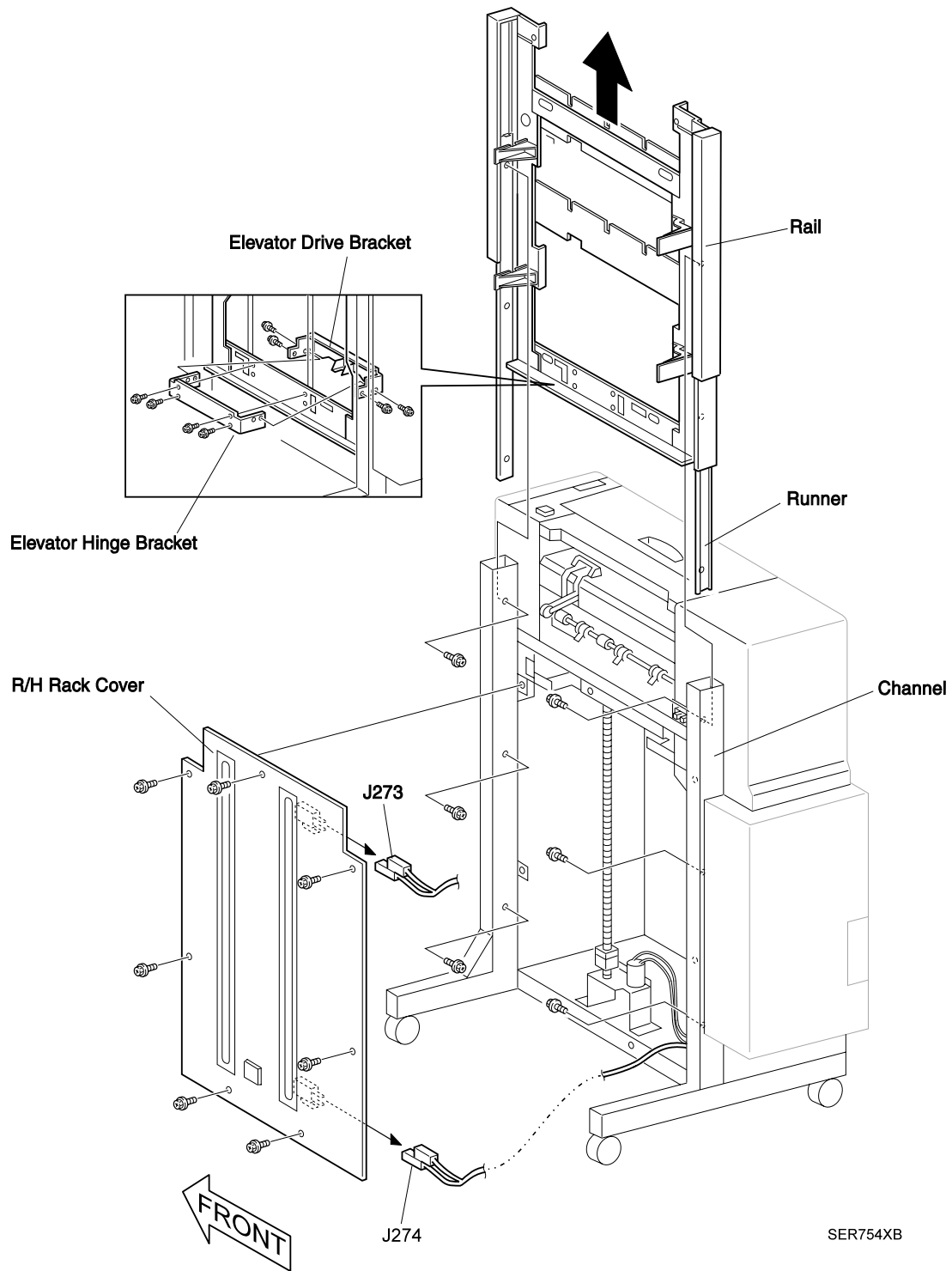
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Rear Cover (RRP 6.8).
3. Free the ID Sensor wire harness from the harness clip.
4. Remove the screw securing the Stacker Tray ID Sensor Bracket to the HCS frame, and remove the Bracket and attached Sensor.
5. Disconnect J837 from the Sensor.
6. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Stacker Tray ID Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect J837 to the Sensor.
3. Reinstall the Sensor Bracket onto the HCS frame, making sure you align the positioning hole in the Bracket with the positioning tab on the frame.
4. Use one screw to secure the Bracket and Sensor to the frame.
5. Route the ID Sensor wire harness through the harness clip.
6. Reinstall the Rear Cover (RRP 6.8).
7. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.16 R/H Rack Cover Assembly (PL 17.4)



SER754XB

RRP 6.16 R/H Rack Cover Assembly (PL 17.4)

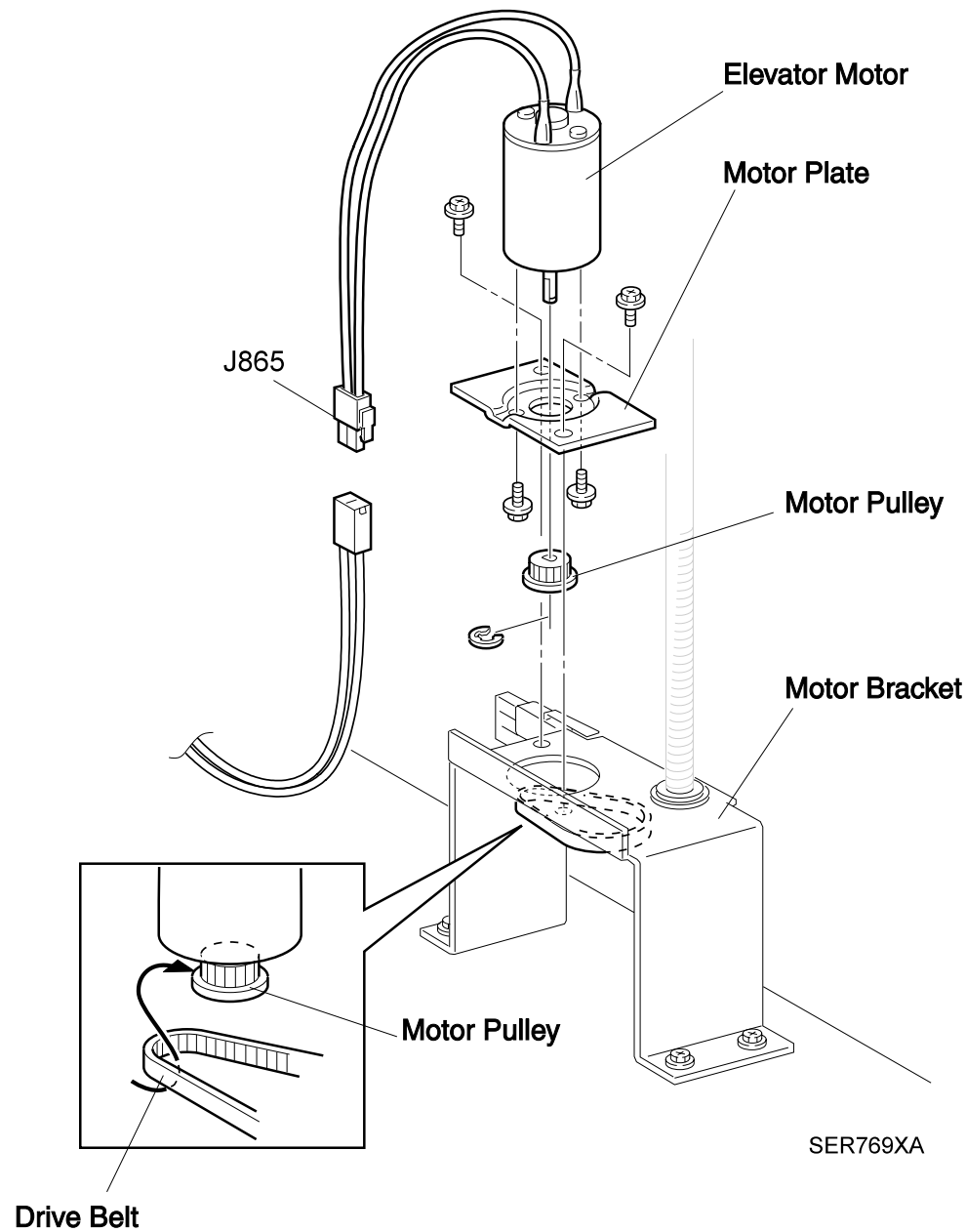
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Remove the Middle Tray Assembly (RRP 6.27).
3. Remove the Top Tray Assembly (RRP 6.35).
4. Remove the L/H Cover Low (RRP 6.6).
5. Remove the four screws securing the Elevator Drive Bracket to the Elevator Hinge Bracket, and remove the Drive Bracket.
6. Remove the four screws securing the Elevator Hinge Bracket to the R/H Rail Cover, and remove the Hinge Bracket.
7. Remove the six screws securing the Rail to the two channels of the HCS frame, and lift the Rail up and off of the HCS frame.
8. Remove the seven screws securing the R/H Rack Cover to the HCS frame, and pull the Cover away from the frame.
9. Disconnect J273 (Upper Limit Switch).
10. Disconnect J274 (Lower Limit Switch).

Replacement

1. Position the R/H Rack Cover near the HCS frame.
2. Reconnect J274 (Lower Limit Switch).
3. Reconnect J273 (Upper Limit Switch).
4. Reinstall the R/H Race Cover onto the HCS frame, and use seven screws to secure the Cover to the frame.
5. Position the Rail as shown in the figure and slide the two runners into the it into the two channels of the HCS frame.
6. Use six screws to secure the Rail to the channels.
7. Reinstall the Elevator Hinge Bracket to the R/H Rack Cover, and use four screws to secure the Bracket.
8. Reinstall the Elevator Drive Bracket to the Hinge Bracket, and use four screws to secure the Drive Bracket.
9. Reinstall the L/H Cover Low (RRP 6.6).
10. Reinstall the Top Tray Assembly (RRP 6.35).
11. Reinstall the Middle Tray Assembly (RRP 6.27).
12. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.17 Stacker Elevator Motor (PL 18.1)



SER769XA

RRP 6.17 Stacker Elevator Motor (PL 18.1)

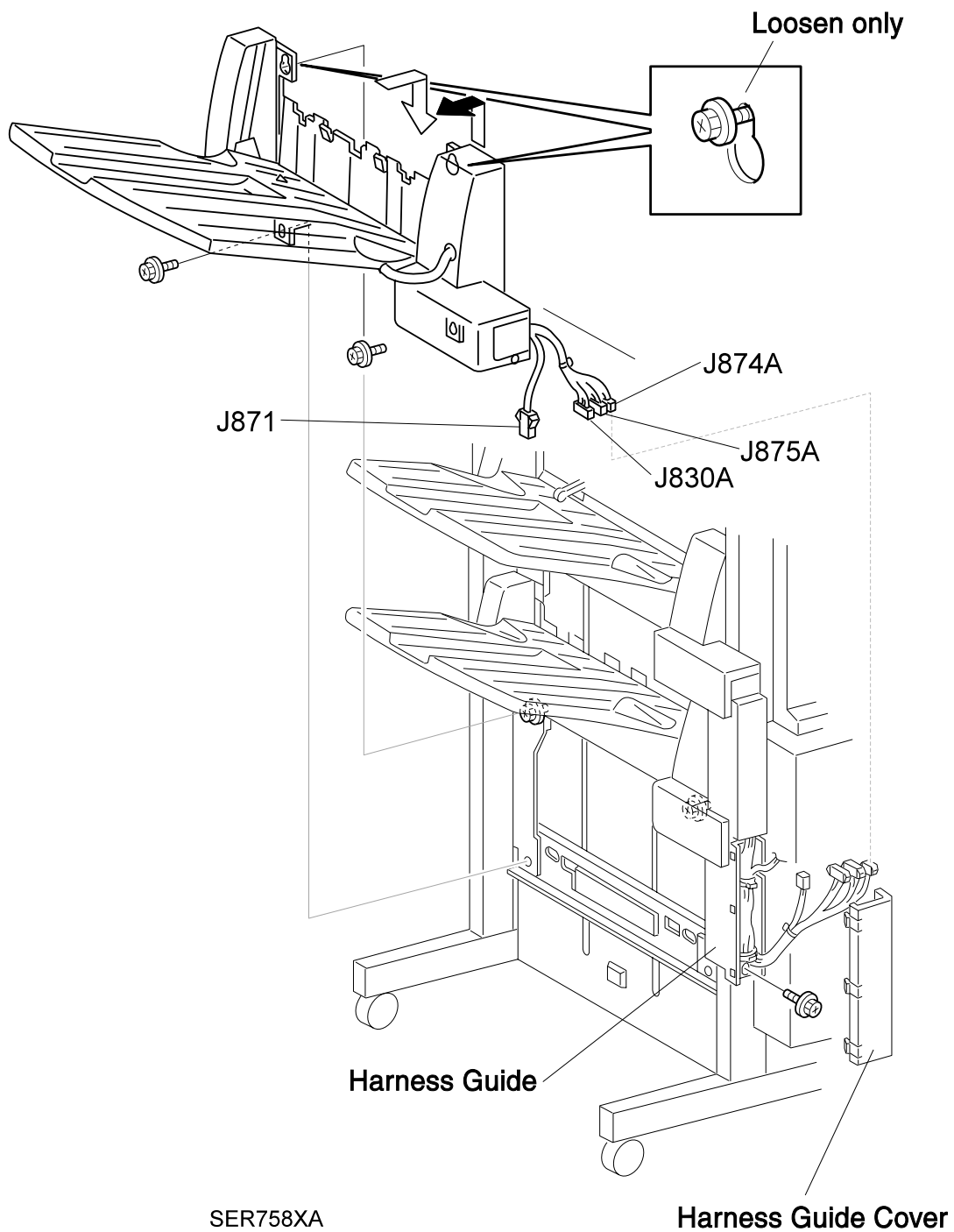
Removal

1. Remove the L/H Cover Low (RRP 6.6).
2. Remove the two screws securing the Motor Plate to the Motor Bracket.
3. Slide the plate to free the Motor Pulley from the Drive Belt, and remove the Motor Plate, along with the attached Elevator Motor, from the Bracket.
4. Disconnect J865.
5. Remove the E ring securing the Motor Pulley to the Motor shaft, and remove the Pulley.
6. Remove the two screws securing the Elevator Motor to the Motor Plate, and remove the Motor.

Replacement

1. Position the Elevator Motor against the Motor Plate, as shown in the figure.
2. Use two screws to secure the Motor to the Plate.
3. Reinstall the Motor Pulley, with the lip of the Pulley away from the Motor, onto the end of the Motor shaft.
4. Use an E ring to secure the Pulley to the Motor shaft.
5. Reach under the Motor Bracket and extend the Drive Belt.
6. Reinstall the Motor and Motor Plate onto the hole in the Motor Bracket and loop the Drive Belt over the Motor Pulley.
7. Use two screws to secure the Motor Plate to the Motor Bracket.
8. Reconnect J865.
9. Reinstall the L/H Cover Low (RRP 6.6).

RRP 6.18 Bottom (Lower) Tray Assembly (PL 18.2)



SER758XA

RRP 6.18 Bottom (Lower) Tray Assembly (PL 18.2)

Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Harness Cover (RRP 6.9).
3. Remove the bottom Harness Guide Cover.
4. Free the wire harnesses in the Harness Guide, from the harness clips.
5. Disconnect J830A, J871A, J874A, and J875A.
6. Remove the screw securing the bottom Harness Guide, and remove the Guide.
7. Remove the two screws, located at the bottom of the Bottom Tray Assembly, securing the Assembly to the HCS frame.
8. Loosen the two screws, located at the top of the Bottom Tray Assembly, securing the Assembly to the HCS frame.
9. Lift the Bottom Tray Assembly off of the top screws, and remove the Assembly from the HCS frame.

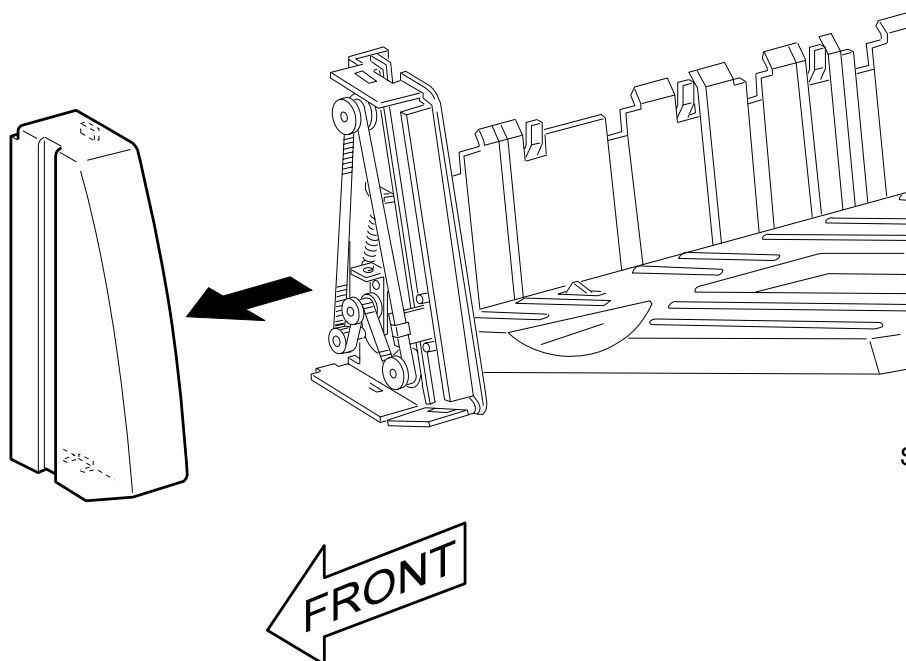
Replacement

1. Reinstall the Bottom Tray Assembly by hooking the keyhole screw holes at the top of the Assembly over the two screws on the HCS frame.
2. Tighten the two top screws.
3. Use two screws to secure the bottom of the Assembly to the HCS frame.
4. Route the Bottom Tray Assembly wire harness into the slot in the bottom Harness Guide.
5. Reinstall the bottom Harness Guide, and use one screw to secure it to the HCS frame.
6. Reconnect J830A, J871A, J874A, and J875A.
7. Secure the wire harness into the harness clips.
8. Reinstall the bottom Harness Guide Cover.

It snaps into place.

9. Reinstall the Harness Cover (RRP 6.9).
10. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.19 Bottom Tray Front Cover (PL 18.2)



SER759FA

SER759FA

RRP 6.19 Bottom Tray Front Cover (PL 18.2)

Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Pry up the Bottom of the Front Cover, and remove the Cover.

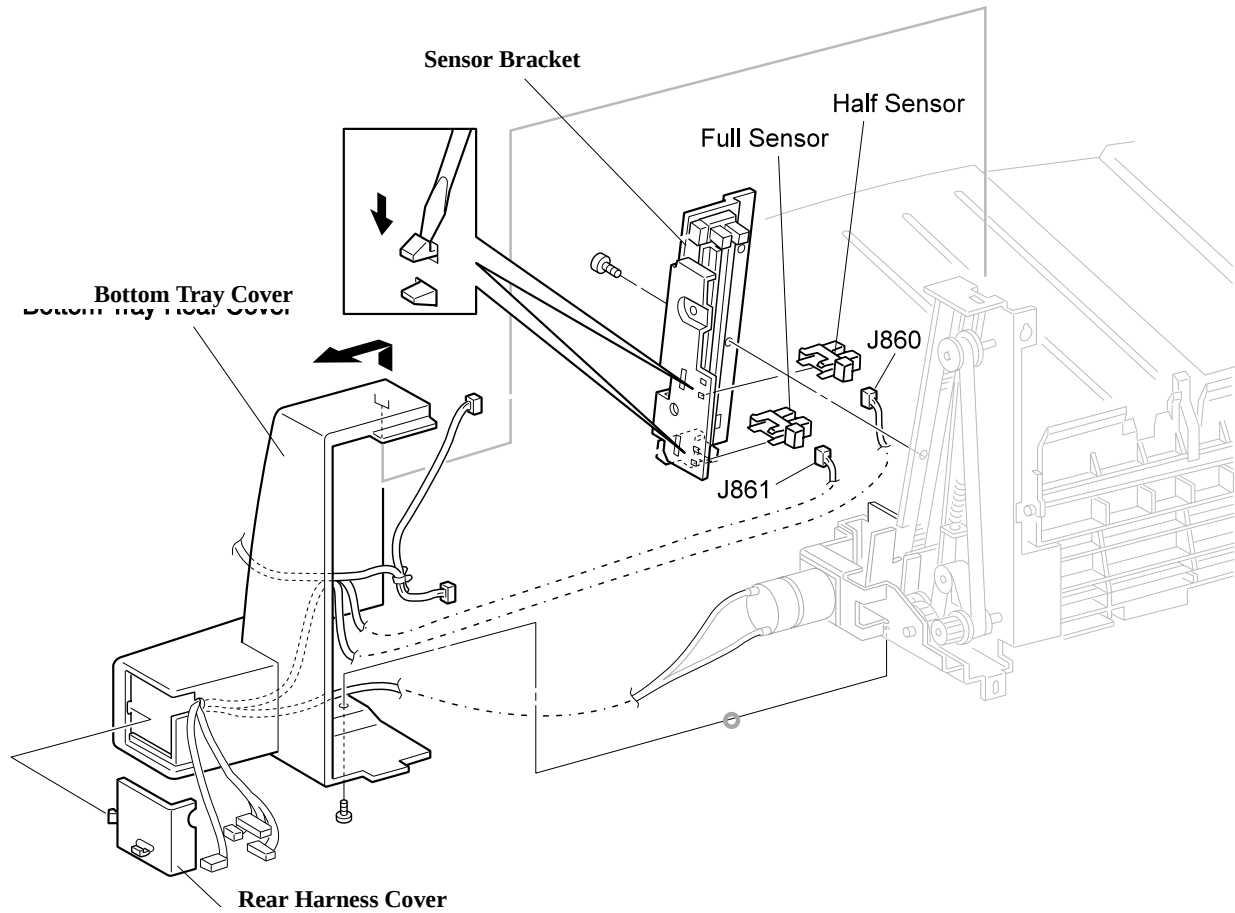
Replacement

1. Reinstall the Front Cover onto the Bottom Tray.

The Cover snaps into place.

2. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.20 Bottom Tray Half and Full Sensors (PL 18.2)



SER821XB

RRP 6.20 Bottom Tray Half and Full Sensors (PL 18.2)

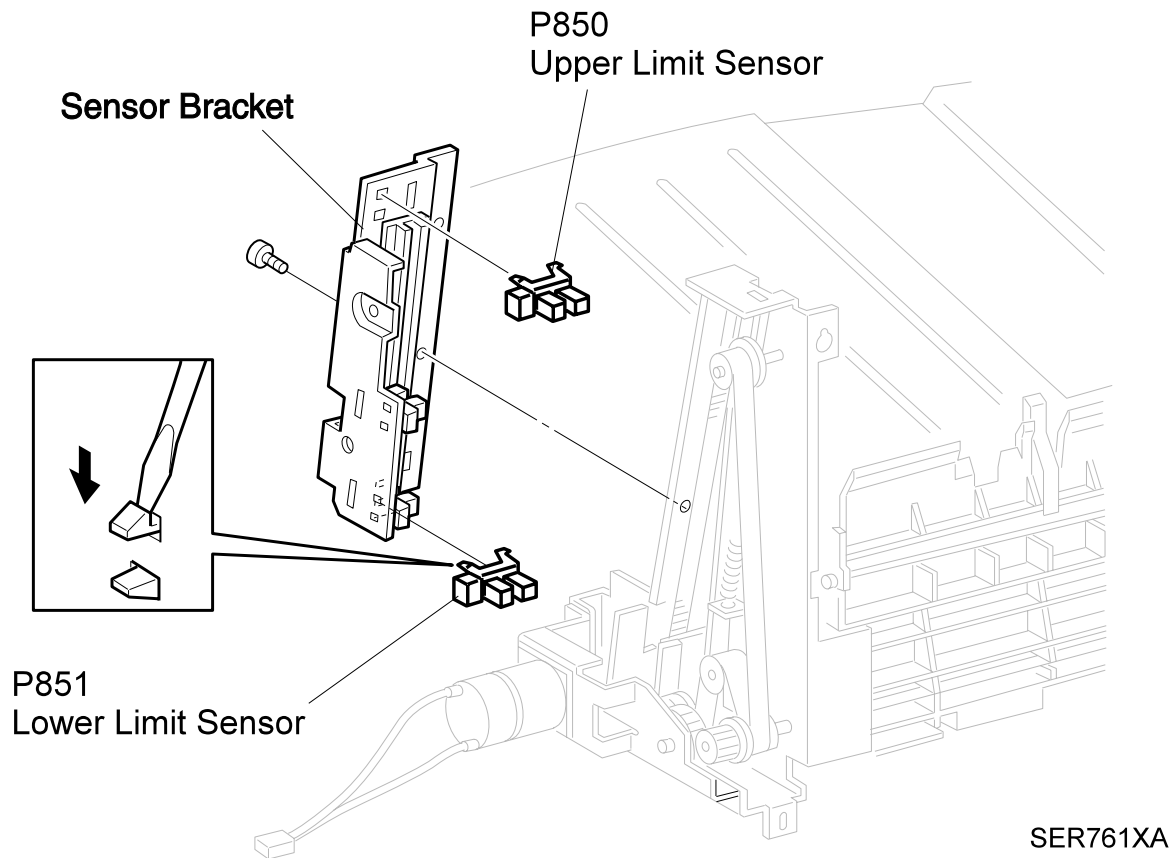
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Slide the Rear Harness Cover off of the Bottom Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Bottom Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
6. Disconnect P860 from the Half Sensor.
7. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.
8. Disconnect P861 from the Full Sensor.
9. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Full Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P861 to the Full Sensor.
3. Position the Half Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
4. Reconnect P860 to the Full Sensor.
5. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure it to the frame.
6. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
7. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
8. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.21 Bottom Tray Lower & Upper Limit Sensors



SER761XA

RRP 6.21 Bottom Tray Lower & Upper Limit Sensors

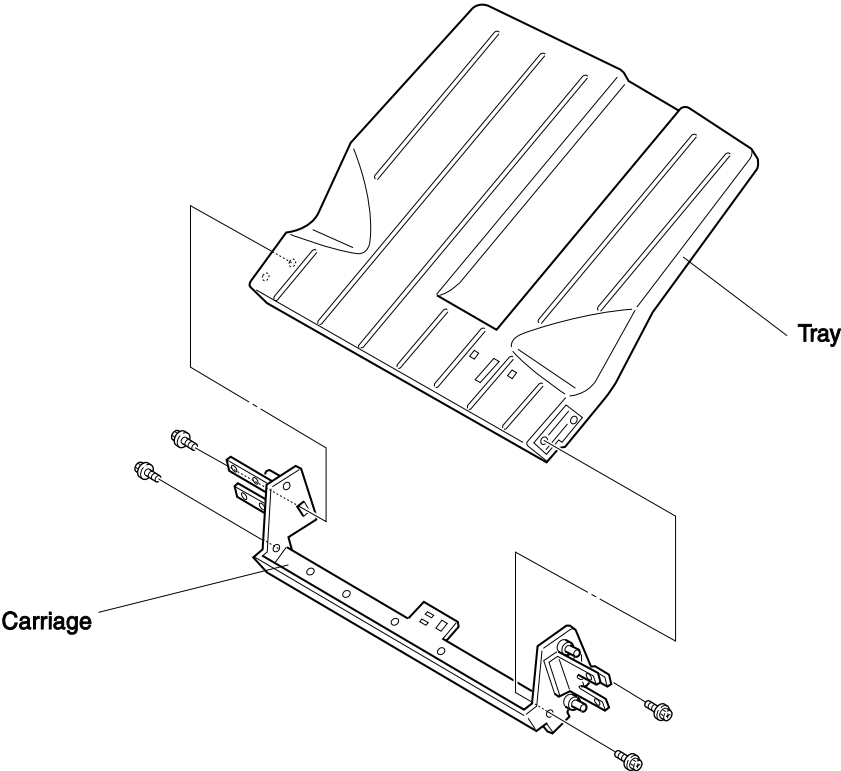
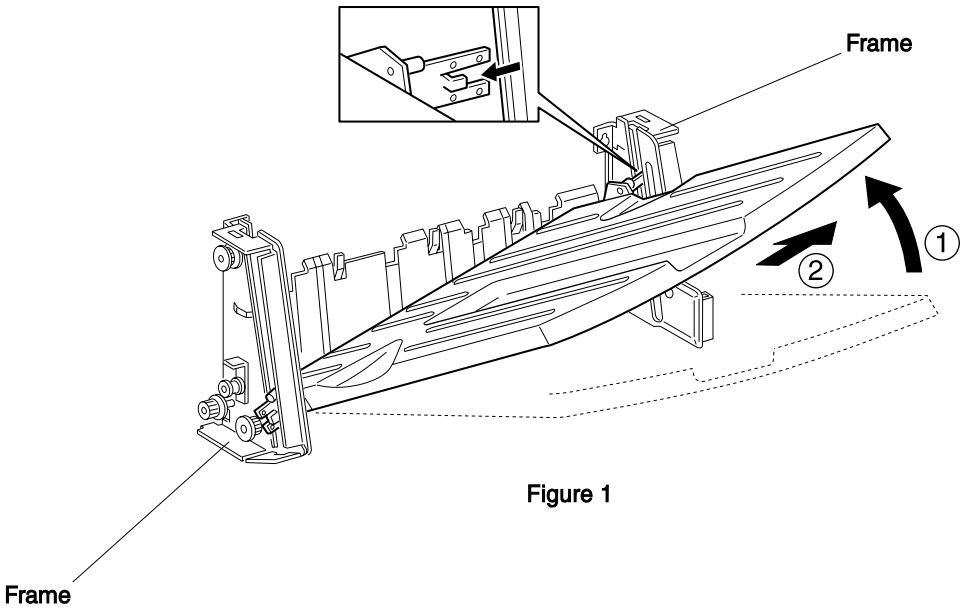
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Slide the Rear Harness Cover off of the Bottom Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Bottom Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
6. Disconnect P850 from the Upper Limit Sensor.
7. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.
8. Disconnect P851 from the Lower Limit Sensor.
9. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Lower Limit Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P851 to the Lower Limit Sensor.
3. Position the Upper Limit Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
4. Reconnect P850 to the Upper Limit Sensor.
5. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure it to the frame.
6. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
7. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
8. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.22 Bottom Tray (PL 18.2)



SER765XB

SER765XB

RRP 6.22 Bottom Tray (PL 18.2)

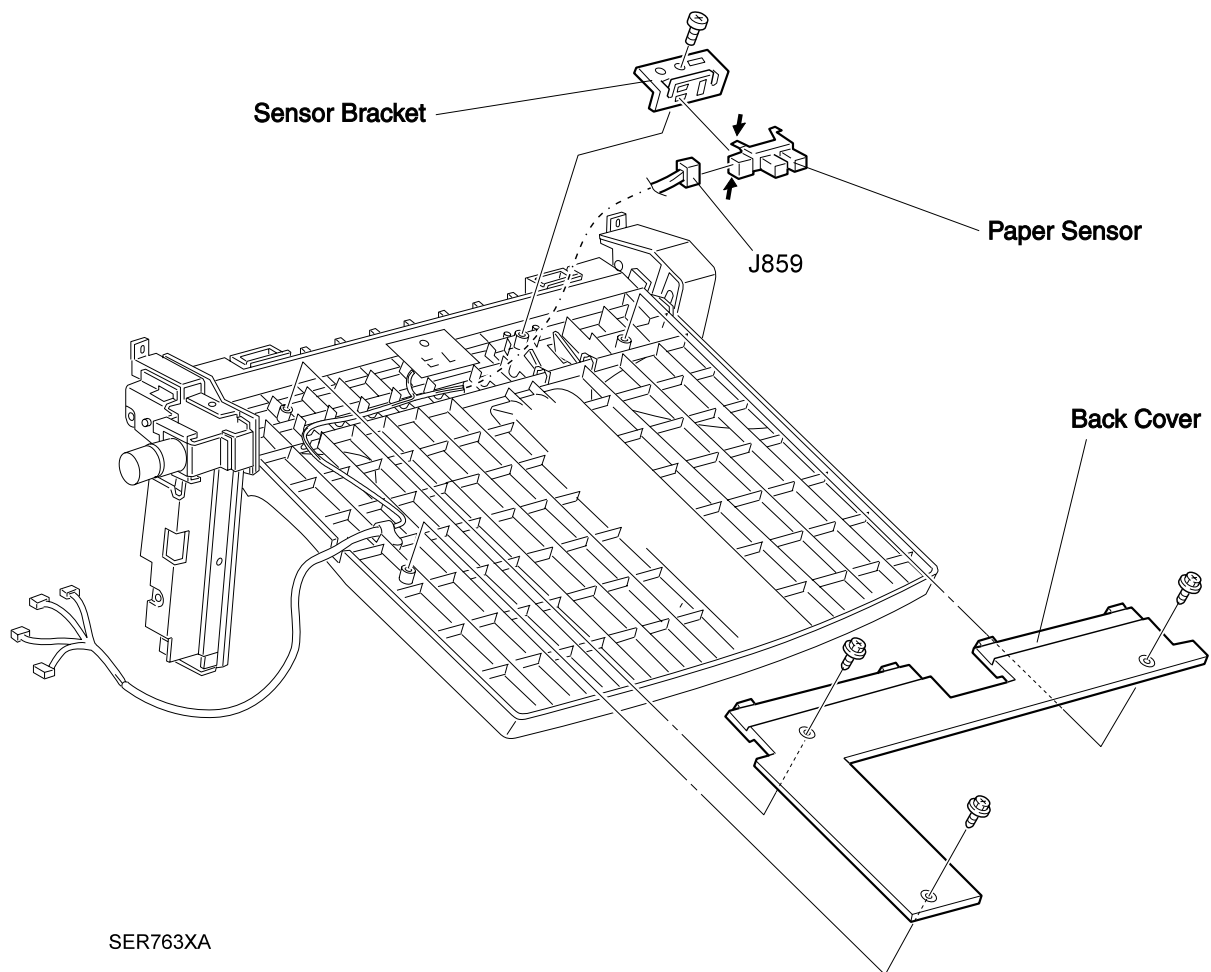
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Remove both Bottom Tray Drive Belts (RRP 6.26).
3. Remove the Bottom Tray Paper Sensor (RRP 6.23) and Sensor Actuator.
4. Remove the Bottom Tray Safety Sensor (RRP 6.24).
5. Remove the screw securing the Sensor wire harness to the underside of the Tray, and remove the harness.
6. Slide the Tray out of the slots in the Front and Rear Tray Frames, and remove the Tray (Figure 1).
7. Remove the four screws securing the Carriage to the Tray, and remove the Tray (Figure 2).

Replacement

1. Reinstall the Carriage onto the Tray, and use four screws to secure the Carriage.
2. Reinstall the Tray into the slots in the Front and Rear Tray Frames.
3. Reinstall the Sensor wire harness to the underside of the Tray, and use one screw to secure the harness.
4. Reinstall the Bottom Tray Safety Sensor (RRP 6.24).
5. Reinstall the Bottom Tray Paper Sensor (RRP 6.23) and Sensor Actuator.
6. Reinstall both Bottom Tray Drive Belts (RRP 6.26).
7. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.23 Bottom Tray Paper Sensor (PL 18.2)



SER763XA

RRP 6.23 Bottom Tray Paper Sensor (PL 18.2)

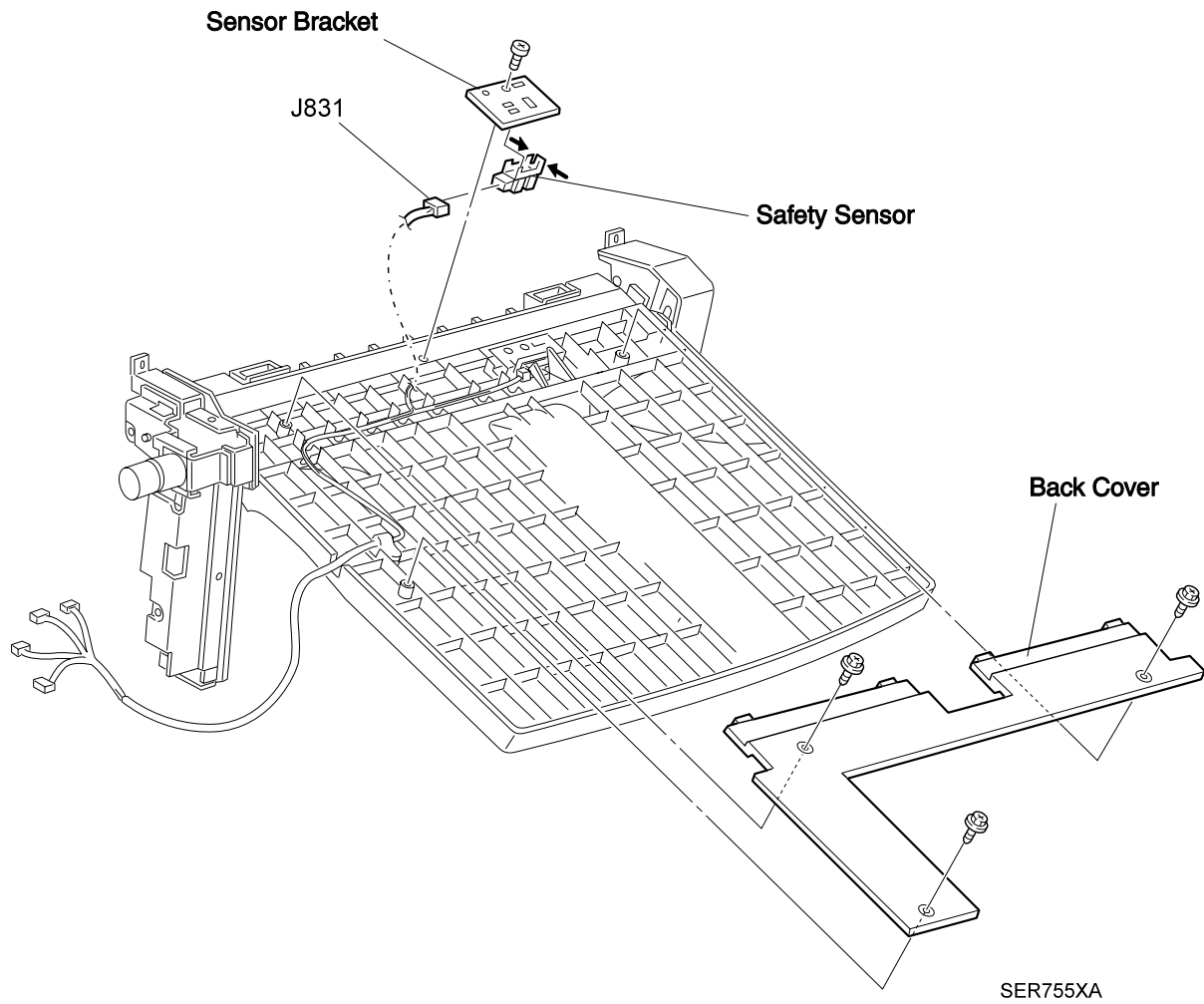
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Remove the three screws securing the Back Cover to the Tray, and remove the Cover.
3. Remove the screw securing the Paper Sensor Bracket to the Tray, and remove the Bracket along with the attached Paper Sensor.
4. Disconnect J859 from the Sensor.
5. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Bottom Tray Paper Sensor as shown in the figure, and insert in, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect J859 to the Sensor.
3. Reinstall the Sensor Bracket onto the Tray, making sure you align the position holes in the Bracket with the positioning tabs on the Tray.
4. Use one screw to secure the Bracket to the Tray.
5. Reinstall the Back Cover to the Tray, and use three screws to secure the Cover.
6. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.24 Bottom Tray Safety Sensor (PL 18.2)



SER755XA

RRP 6.24 Bottom Tray Safety Sensor (PL 18.2)

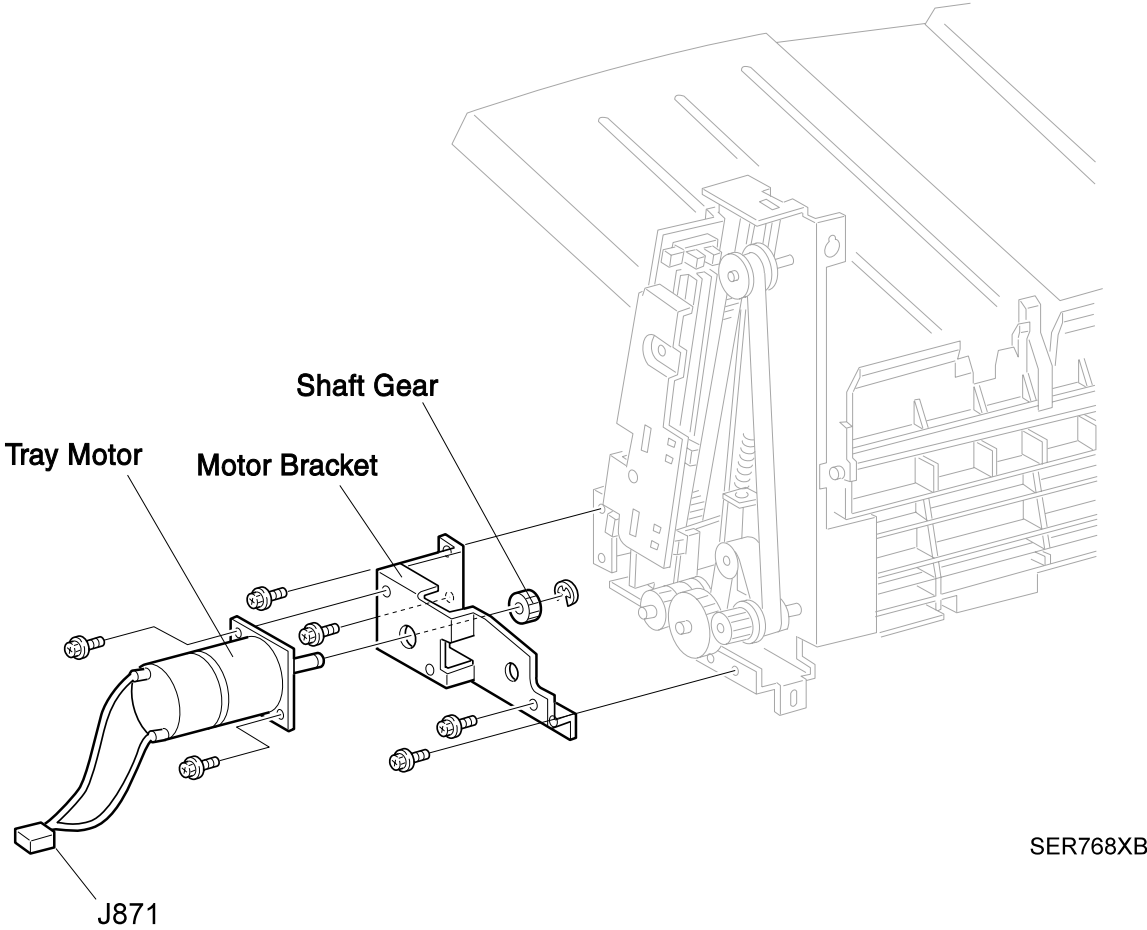
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Remove the three screws securing the Back Cover to the Tray, and remove the Cover.
3. Remove the screw securing the Safety Sensor Bracket to the Tray, and remove the Bracket along with the attached Safety Sensor.
4. Disconnect J831 from the Sensor.
5. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Bottom Tray Safety Sensor as shown in the figure, and insert in, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect J831 to the Sensor.
3. Reinstall the Sensor Bracket onto the Tray, making sure you align the position holes in the Bracket with the positioning tabs on the Tray.
4. Use one screw to secure the Bracket to the Tray.
5. Reinstall the Back Cover to the Tray, and use three screws to secure the Cover.
6. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.25 Bottom Tray Motor (PL 18.2)



SER768XB

RRP 6.25 Bottom Tray Motor (PL 18.2)

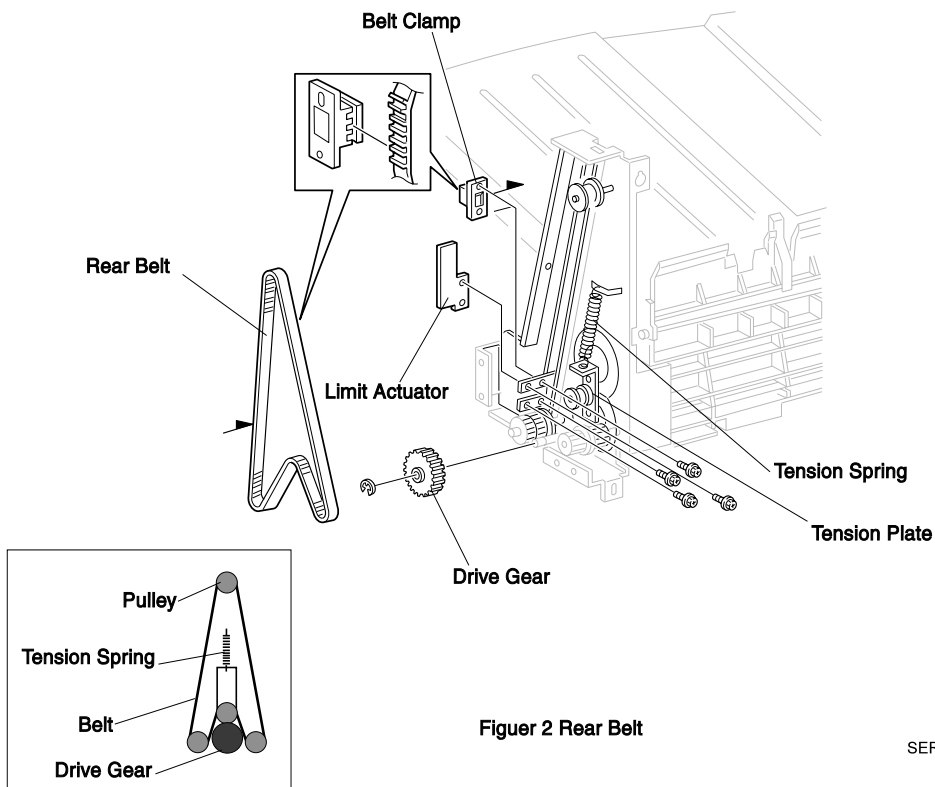
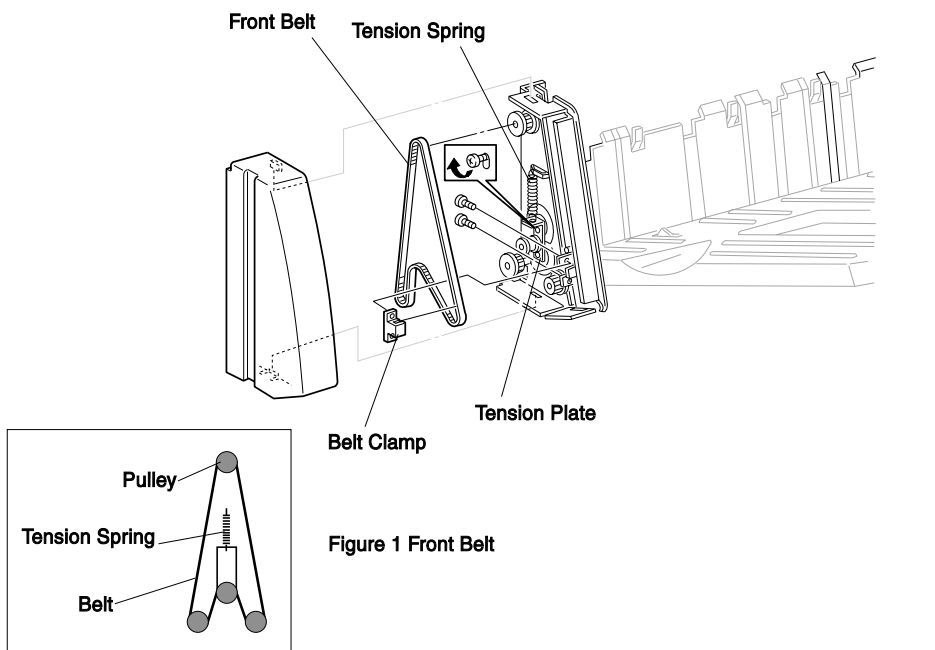
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Slide the Rear Harness Cover off of the Bottom Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Bottom Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the four screws securing the Motor Bracket to the Tray, and remove the Bracket and attached Motor.
6. Remove the E ring securing the Gear to the Motor shaft, and remove the Gear.
7. Remove the two screws securing the Motor to the Bracket, and remove the Motor.

Replacement

1. Reinstall the Motor to the Motor Bracket, and use two screws to secure the Motor.
2. Reinstall the Gear onto the end of the Motor shaft.
3. Use an E ring to secure the Gear to the shaft.
4. Reinstall the Motor Bracket and attached Motor to the Tray frame, and use four screws to secure the Bracket.
5. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
6. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
7. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.26 Bottom Tray Drive Belts (PL 18.3)



SER815XB

SER815XB

RRP 6.26 Bottom Tray Drive Belts (PL 18.3)

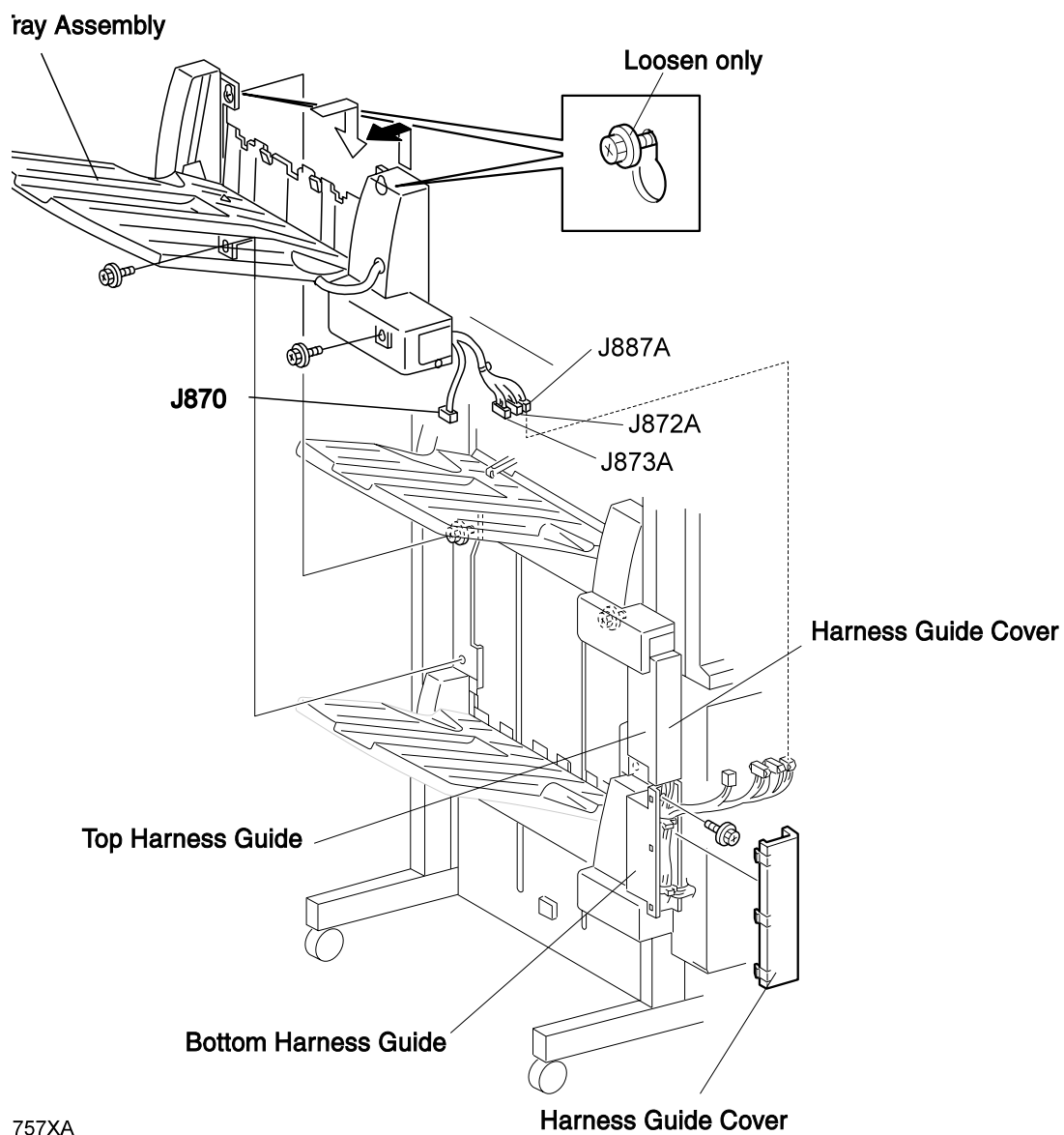
Removal

1. Remove the Bottom Tray Assembly (RRP 6.18).
2. Remove the Bottom Tray Front Cover (RRP 6.19).
3. Unhook the Tension Spring from the Tension Plate (Figure 1).
4. Remove the two screws securing the Tension Plate to the Tray frame, and remove the Plate.
5. Remove the two screws securing the Belt Clamp to the Tray, and remove the Clamp.
6. Slide the Belt out of the Clamp.
7. Remove the E ring secure the Drive Gear to the shaft, and remove the Drive Gear.
8. Remove the Front Drive Belt.
9. Remove the Bottom Tray Motor (RRP 6.25).
10. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
11. Unhook the Tension Spring from the Tension Plate (Figure 2).
12. Remove the two screws securing the Limit Actuator to the Tray frame, and remove the Actuator.
13. Remove the two screws securing the Tension Plate to the Tray frame, and remove the Plate.
14. Remove the two screws securing the Belt Clamp to the Tray, and remove the Clamp.
15. Slide the Belt out of the Clamp.
16. Remove the E ring secure the Drive Gear to the shaft, and remove the Drive Gear.
17. Remove the Rear Drive Belt.

Replacement

1. Reinstall the Rear Drive Belt according to the Figure 2 inset.
2. Reinstall the Drive Gear to the shaft, and use an E ring to secure the Gear.
3. Slide the Rear Belt into the Clamp.
4. Use two screws to secure the Clamp to the Tray frame.
5. Reinstall the Tension Plat to the frame, and use two screws to secure the Plate.
6. Reinstall the Limit Actuator to the frame, and use two screws to secure the Actuator.
7. Hook the Tension Spring onto the Tension Plate.
8. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure the Bracket.
9. Reinstall the Bottom Tray Motor (RRP 6.25).
10. Reinstall the Front Drive Belt according to the Figure 1 inset.
11. Slide the Rear Belt into the Clamp.
12. Use two screws to secure the Clamp to the Tray frame.
13. Reinstall the Tension Plat to the frame, and use two screws to secure the Plate.
14. Hook the Tension Spring onto the Tension Plate.
15. Reinstall the Bottom Tray Front Cover (RRP 6.19).
16. Reinstall the Bottom Tray Assembly (RRP 6.18).

RRP 6.27 Middle Tray Assembly (PL 18.4)



757XA

RRP 6.27 Middle Tray Assembly (PL 18.4)

Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Harness Cover (RRP 6.9).
3. Remove the bottom Harness Guide Cover.
4. Free the wire harnesses in the Harness Guide, from the harness clips.
5. Disconnect J887A, J870, J872A, and J873A.
6. Remove the screw securing the bottom Harness Guide, and remove the Guide.
7. Remove the top Harness Guide Cover.
8. Remove the screw securing the top Harness Guide, and remove the Guide.
9. Remove the two screws, located at the bottom of the Middle Tray Assembly, securing the Assembly to the HCS frame.
10. Loosen the two screws, located at the top of the Middle Tray Assembly, securing the Assembly to the HCS frame.
11. Lift the Middle Tray Assembly off of the top screws, and remove the Assembly from the HCS frame.

Replacement

1. Reinstall the Middle Tray Assembly by hooking the keyhole screw holes at the top of the Assembly over the two screws on the HCS frame.
2. Tighten the two top screws.
3. Use two screws to secure the bottom of the Assembly to the HCS frame.
4. Route the Middle Tray Assembly wire harness into the slot in the bottom Harness Guide.
5. Reinstall the top Harness Guide, and use one screw to secure it to the HCS frame.
6. Reinstall the top Harness Guide Cover.

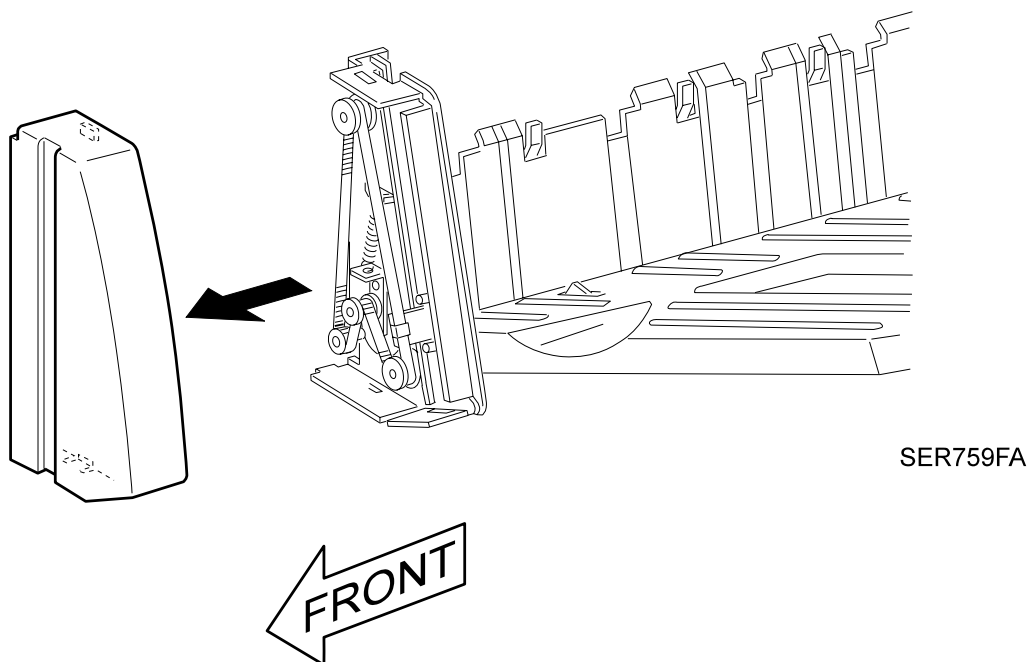
It snaps into place.

7. Reinstall the bottom Harness Guide, and use one screw to secure it to the HCS frame.
8. Reconnect J887A, J870, J872A, and J873A.
9. Secure the wire harness into the harness clips.
10. Reinstall the bottom Harness Guide Cover.

It snaps into place.

11. Reinstall the Harness Cover (RRP 6.9).
12. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.28 Middle Tray Front Cover (PL 18.4)



SER759FA

RRP 6.28 Middle Tray Front Cover (PL 18.4)

Removal

1. Remove the Middle Tray Assembly (RRP 6.27).
2. Pry up the Bottom of the Front Cover, and remove the Cover.

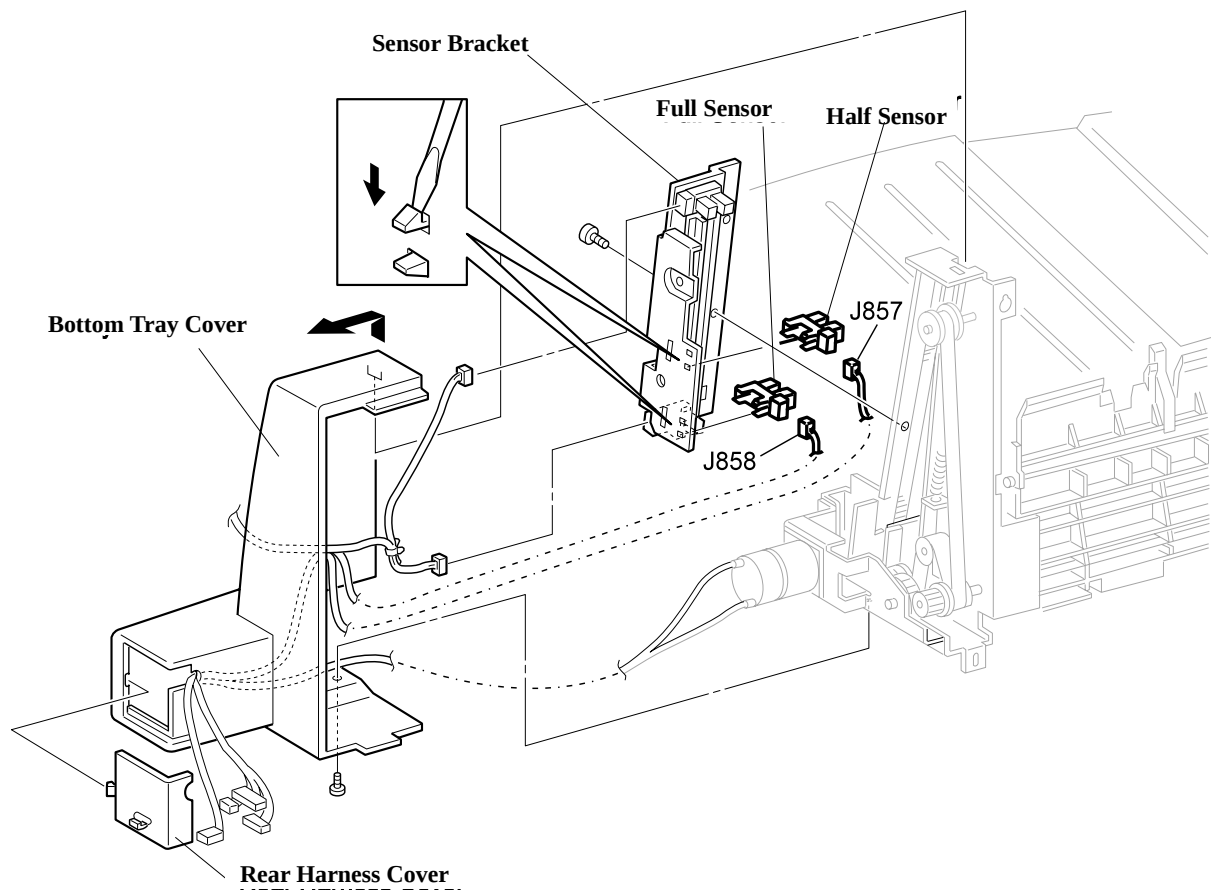
Replacement

1. Reinstall the Front Cover onto the Middle Tray.

The Cover snaps into place.

2. Reinstall the Middle Tray Assembly (RRP 6.27).

RRP 6.29 Middle Tray Half and Full Sensors (PL 18.4)



SER805XB

RRP 6.29 Middle Tray Half and Full Sensors (PL 18.4)

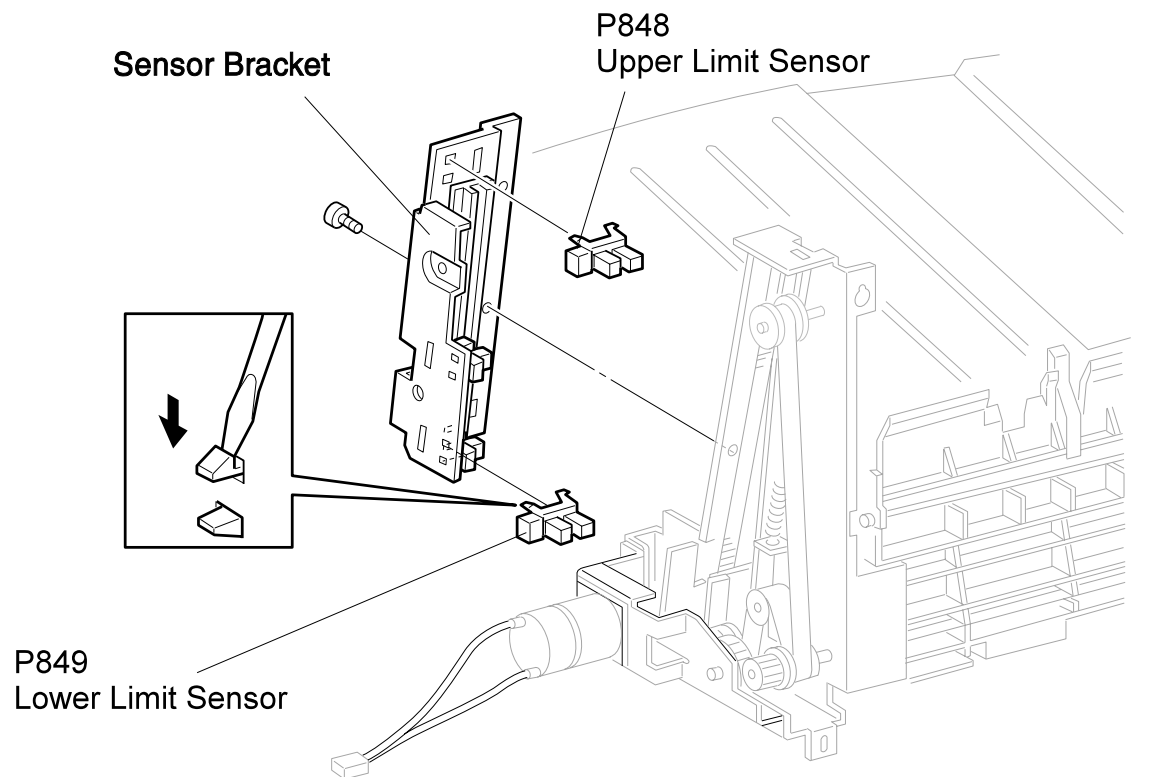
Removal

1. Remove the Middle Tray Assembly (RRP 6.27).
2. Slide the Rear Harness Cover off of the Middle Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Middle Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
6. Disconnect P857 from the Half Sensor.
7. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.
8. Disconnect P858 from the Full Sensor.
9. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Full Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P858 to the Full Sensor.
3. Position the Half Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
4. Reconnect P857 to the Full Sensor.
5. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure it to the frame.
6. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
7. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
8. Reinstall the Middle Tray Assembly (RRP 6.27).

RRP 6.30 Middle Tray Lower & Upper Limit Sensors (PL18.4)



SER816XB

SER816XB

RRP 6.30 Middle Tray Lower & Upper Limit Sensors (PL18.4)

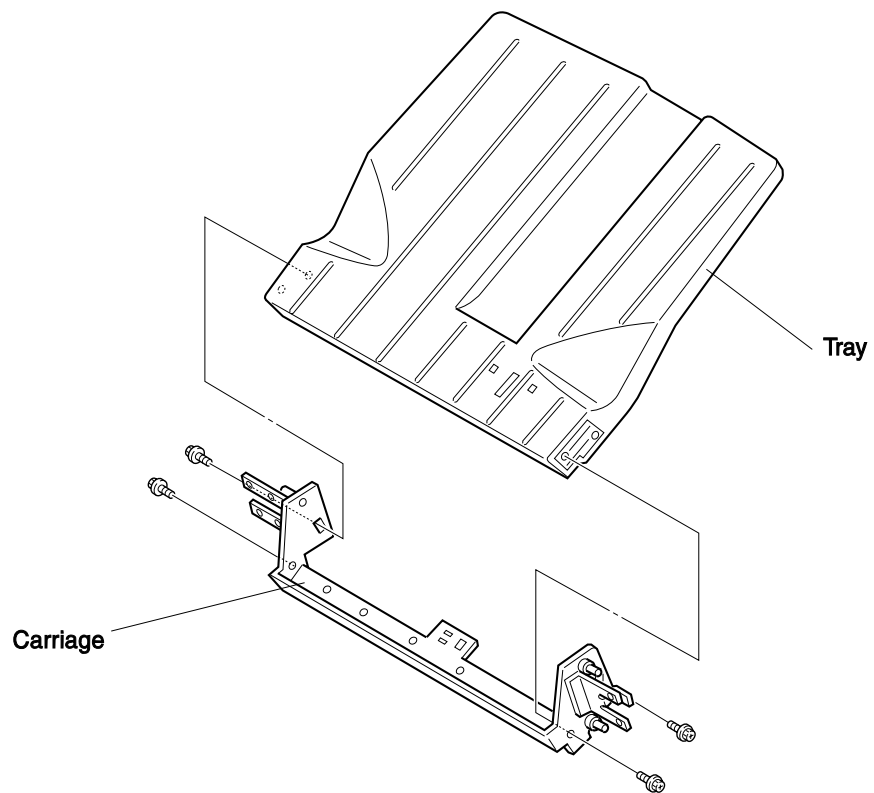
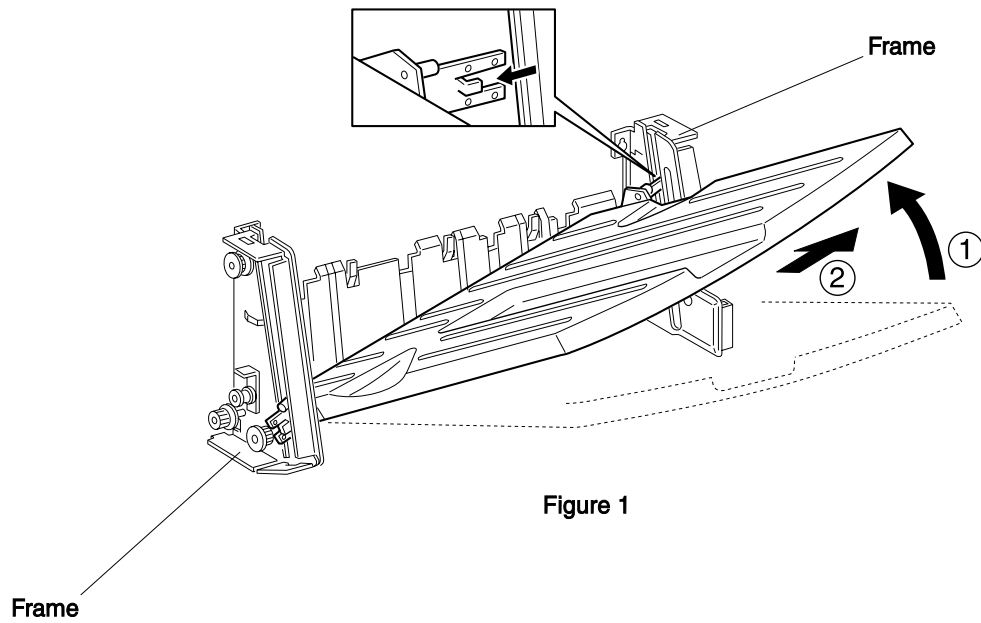
Removal

1. Remove the Middle Tray Assembly (RRP 6.27).
2. Slide the Rear Harness Cover off of the Middle Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Bottom Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
6. Disconnect P848 from the Upper Limit Sensor.
7. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.
8. Disconnect P849 from the Lower Limit Sensor.
9. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Lower Limit Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P849 to the Lower Limit Sensor.
3. Position the Upper Limit Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
4. Reconnect P848 to the Upper Limit Sensor.
5. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure it to the frame.
6. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
7. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
8. Reinstall the Middle Tray Assembly (RRP 6.27).

RRP 6.31 Middle Tray (PL 18.4)



SER765XB

SER765XB

RRP 6.31 Middle Tray (PL 18.4)

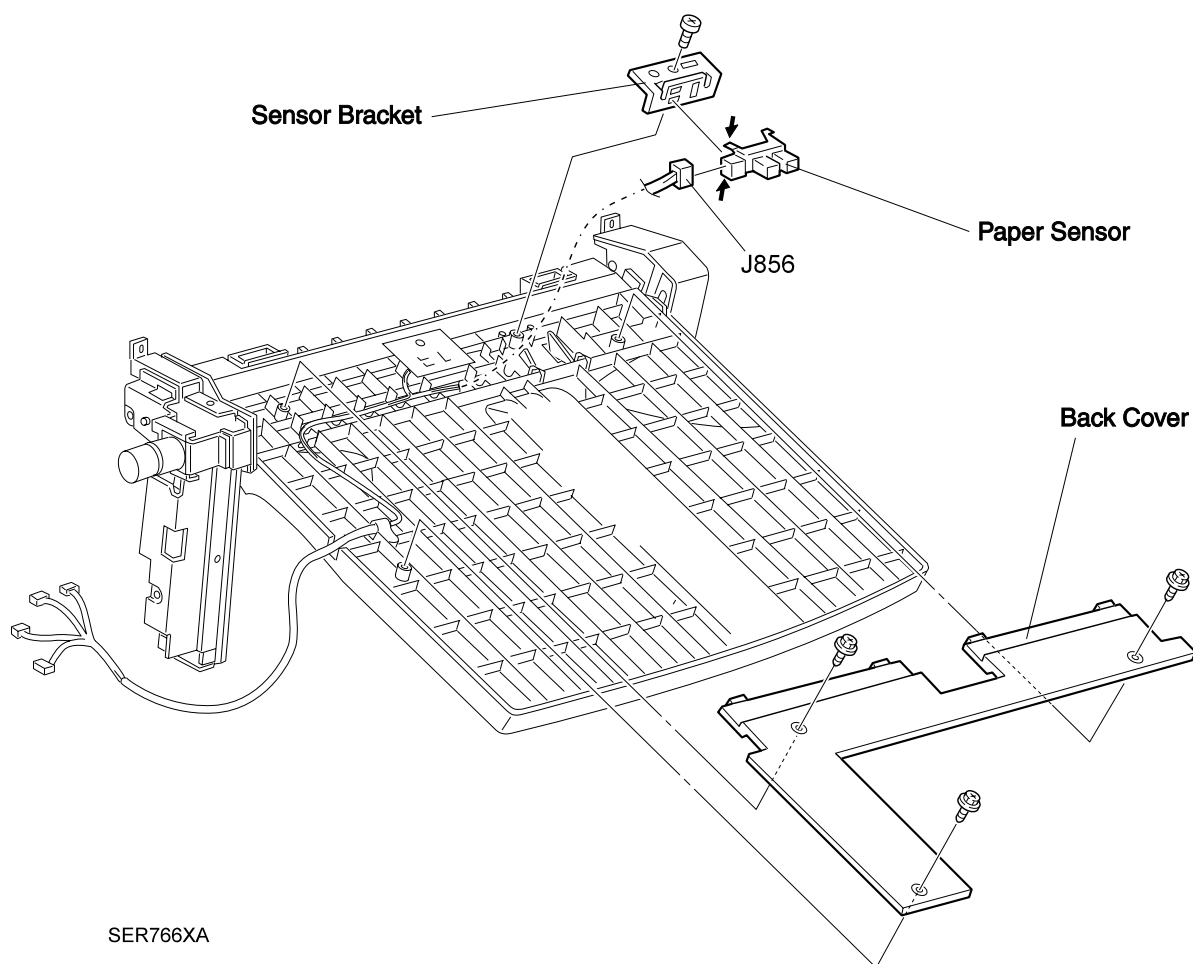
Removal

1. Remove the Middle Tray Assembly (RRP 6.27).
2. Remove both Middle Tray Drive Belts (RRP 6.34).
3. Remove the Middle Tray Paper Sensor (RRP 6.32) and Sensor Actuator.
4. Remove the screw securing the Sensor wire harness to the underside of the Tray, and remove the harness.
5. Slide the Tray out of the slots in the Front and Rear Tray Frames, and remove the Tray (Figure 1).
6. Remove the four screws securing the Carriage to the Tray, and remove the Tray (Figure 2).

Replacement

1. Reinstall the Carriage onto the Tray, and use four screws to secure the Carriage.
2. Reinstall the Tray into the slots in the Front and Rear Tray Frames.
3. Reinstall the Sensor wire harness to the underside of the Tray, and use one screw to secure the harness.
4. Reinstall the Middle Tray Paper Sensor (RRP 6.32) and Sensor Actuator.
5. Reinstall both Middle Tray Drive Belts (RRP 6.34).
6. Reinstall the Middle Tray Assembly (RRP 6.27).

RRP 6.32 Middle Tray Paper Sensor (PL 18.4)



SER766XA

RRP 6.32 Middle Tray Paper Sensor (PL 18.4)

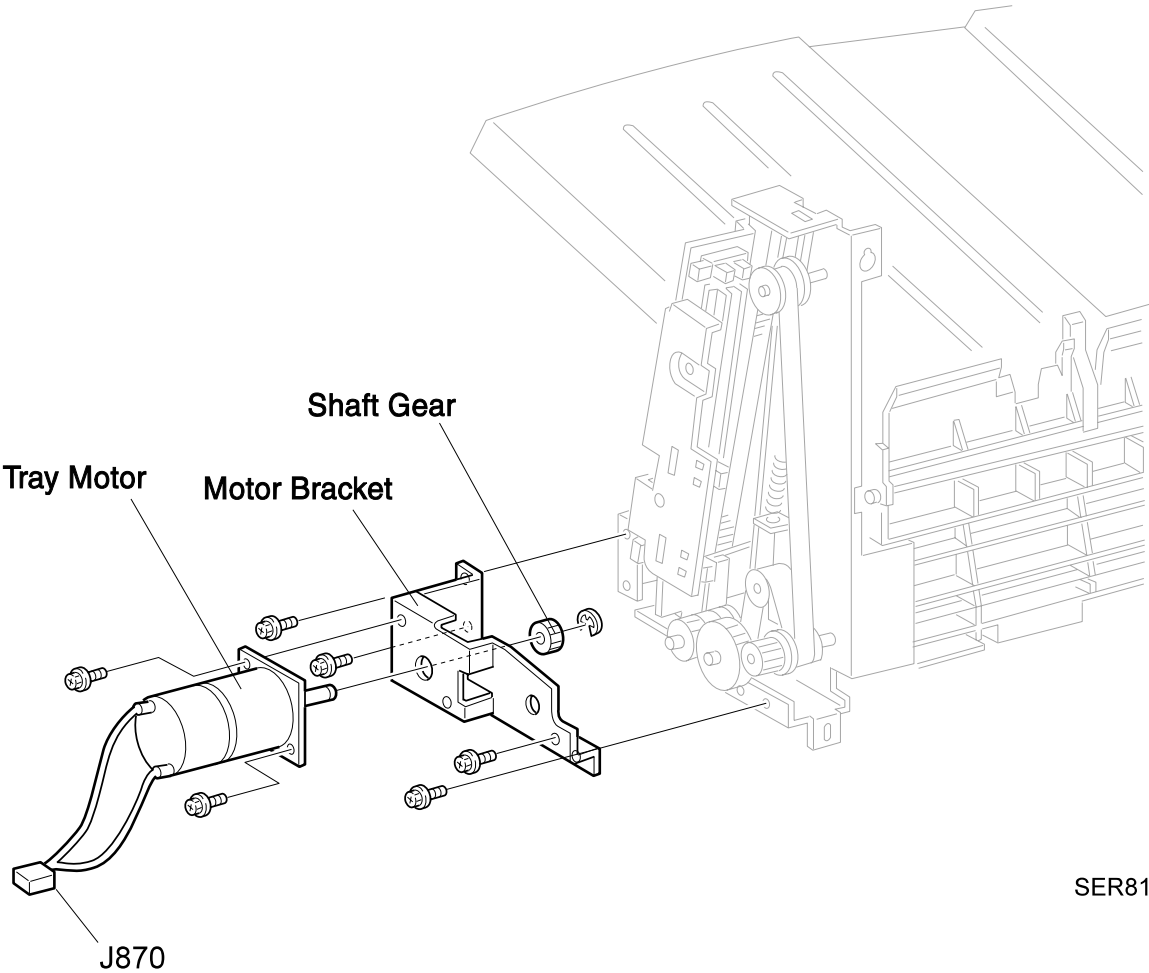
Removal

1. Remove the Middle Tray Assembly (RRP 6.27).
2. Remove the three screws securing the Back Cover to the Tray, and remove the Cover.
3. Remove the screw securing the Paper Sensor Bracket to the Tray, and remove the Bracket along with the attached Paper Sensor.
4. Disconnect J856 from the Sensor.
5. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Middle Tray Paper Sensor as shown in the figure, and insert in, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect J856 to the Sensor.
3. Reinstall the Sensor Bracket onto the Tray, making sure you align the position holes in the Bracket with the positioning tabs on the Tray.
4. Use one screw to secure the Bracket to the Tray.
5. Reinstall the Back Cover to the Tray, and use three screws to secure the Cover.
6. Reinstall the Middle Tray Assembly (RRP 6.27).

RRP 6.33 Middle Tray Motor (PL 18.4)



SER810XB

SER810XB

RRP 6.33 Middle Tray Motor (PL 18.4)

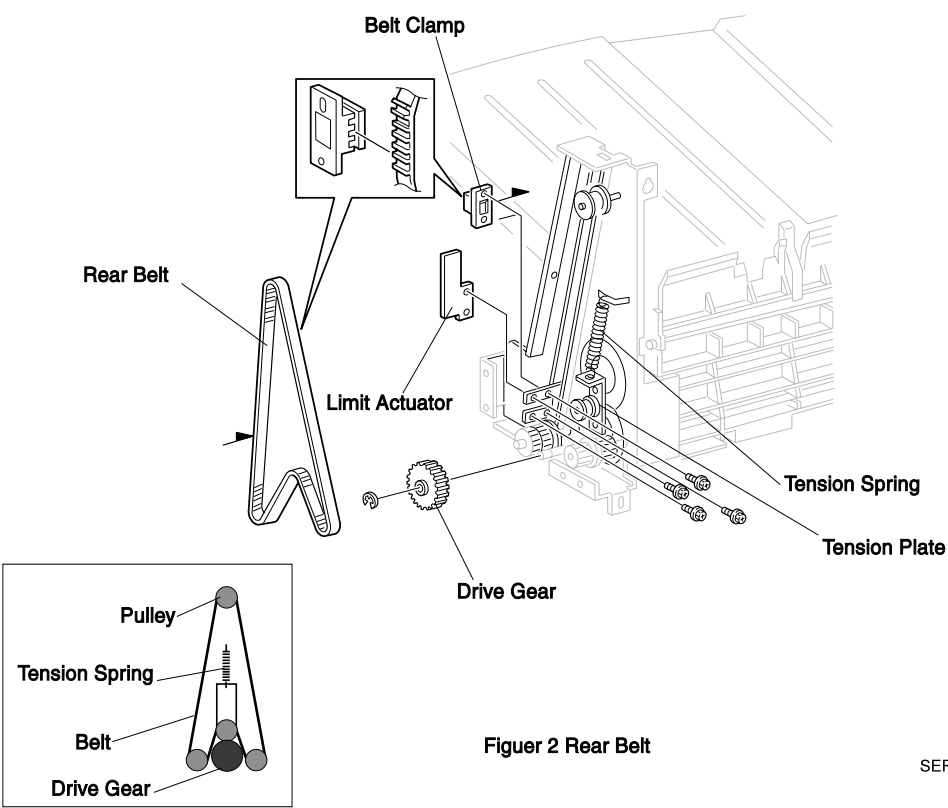
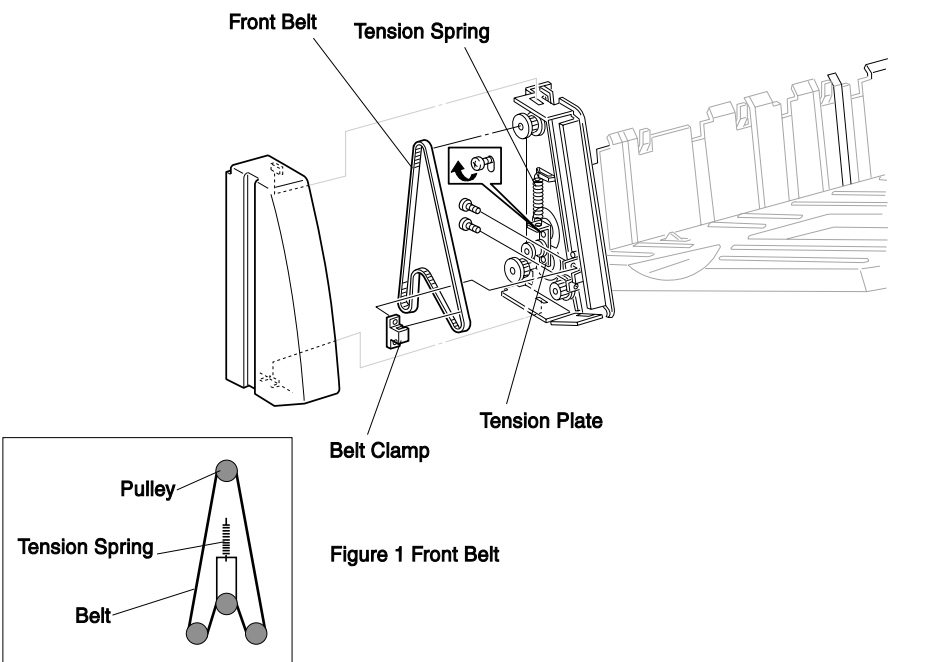
Removal

1. Remove the Middle Tray Assembly (RRP 6.27).
2. Slide the Rear Harness Cover off of the Middle Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Middle Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the four screws securing the Motor Bracket to the Tray, and remove the Bracket and attached Motor.
6. Remove the E ring securing the Gear to the Motor shaft, and remove the Gear.
7. Remove the two screws securing the Motor to the Bracket, and remove the Motor.

Replacement

1. Reinstall the Motor to the Motor Bracket, and use two screws to secure the Motor.
2. Reinstall the Gear onto the end of the Motor shaft.
3. Use an E ring to secure the Gear to the shaft.
4. Reinstall the Motor Bracket and attached Motor to the Tray frame, and use four screws to secure the Bracket.
5. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
6. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
7. Reinstall the Middle Tray Assembly (RRP 6.27).

RRP 6.34 Middle Tray Drive Belts (PL 18.5)



SER815XB

SER815XB

RRP 6.34 Middle Tray Drive Belts (PL 18.5)

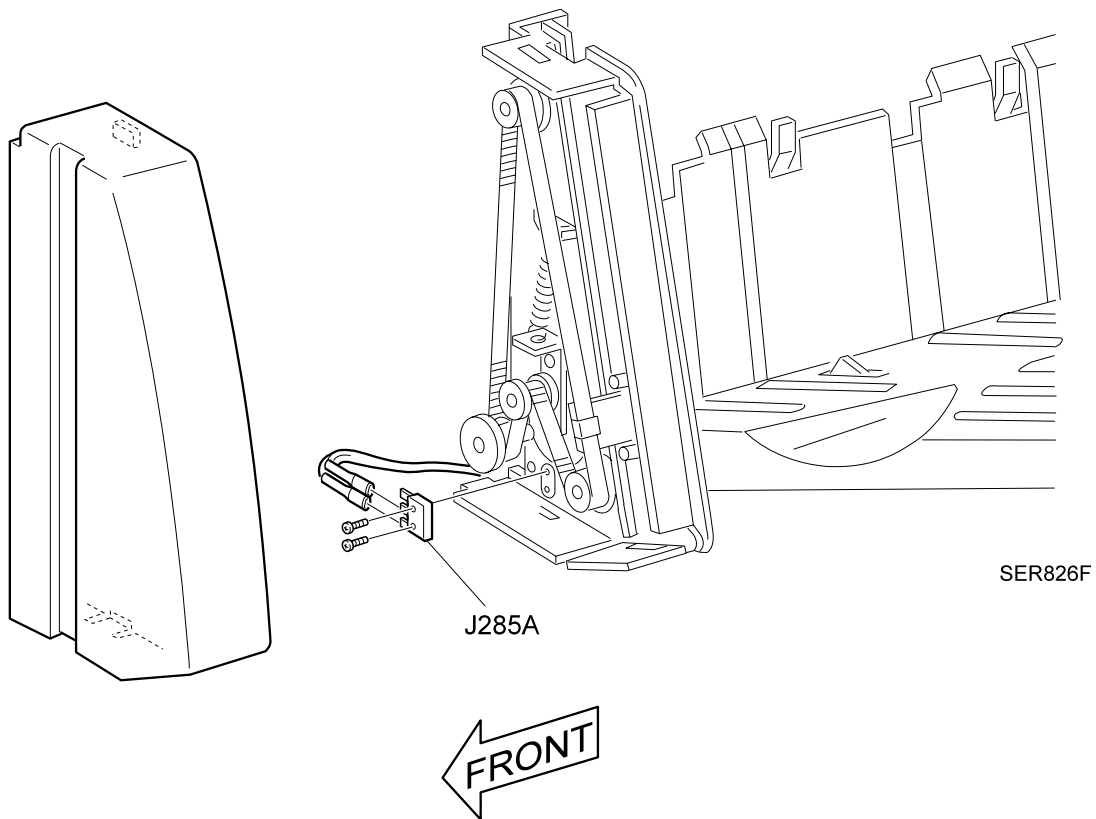
Removal

1. Remove the Middle Tray Assembly (RRP 6.27).
2. Remove the Middle Tray Front Cover (RRP 6.28).
3. Unhook the Tension Spring from the Tension Plate (Figure 1).
4. Remove the two screws securing the Tension Plate to the Tray frame, and remove the Plate.
5. Remove the two screws securing the Belt Clamp to the Tray, and remove the Clamp.
6. Slide the Belt out of the Clamp.
7. Remove the E ring secure the Drive Gear to the shaft, and remove the Drive Gear.
8. Remove the Front Drive Belt.
9. Remove the Middle Tray Motor (RRP 6.33).
10. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
11. Unhook the Tension Spring from the Tension Plate (Figure 2).
12. Remove the two screws securing the Limit Actuator to the Tray frame, and remove the Actuator.
13. Remove the two screws securing the Tension Plate to the Tray frame, and remove the Plate.
14. Remove the two screws securing the Belt Clamp to the Tray, and remove the Clamp.
15. Slide the Belt out of the Clamp.
16. Remove the E ring secure the Drive Gear to the shaft, and remove the Drive Gear.
17. Remove the Rear Drive Belt.

Replacement

1. Reinstall the Rear Drive Belt according to the Figure 2 inset.
2. Reinstall the Drive Gear to the shaft, and use an E ring to secure the Gear.
3. Slide the Rear Belt into the Clamp.
4. Use two screws to secure the Clamp to the Tray frame.
5. Reinstall the Tension Plat to the frame, and use two screws to secure the Plate.
6. Reinstall the Limit Actuator to the frame, and use two screws to secure the Actuator.
7. Hook the Tension Spring onto the Tension Plate.
8. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure the Bracket.
9. Reinstall the Middle Tray Motor (RRP 6.33).
10. Reinstall the Front Drive Belt according to the Figure 1 inset.
11. Slide the Rear Belt into the Clamp.
12. Use two screws to secure the Clamp to the Tray frame.
13. Reinstall the Tension Plat to the frame, and use two screws to secure the Plate.
14. Hook the Tension Spring onto the Tension Plate.
15. Reinstall the Middle Tray Front Cover (RRP 6.28).
16. Reinstall the Middle Tray Assembly (RRP 6.27).

RRP 6.35 Middle Tray Safety Switch (PL 18.4)



SER826F

RRP 6.35 Middle Tray Safety Switch (PL 18.4)

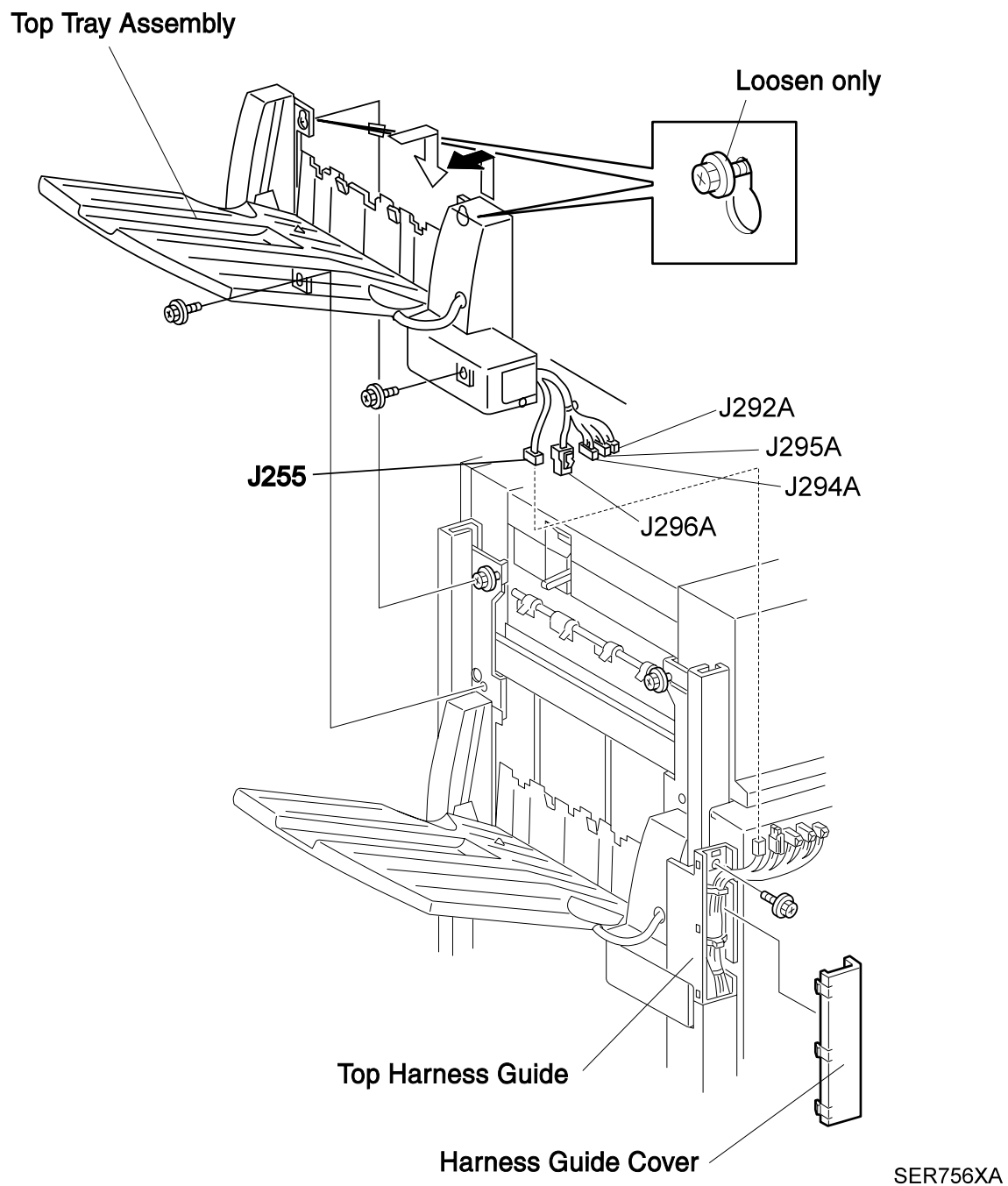
Removal

1. Remove the Middle Tray Front Cover (RRP 6.28).
2. Disconnect J285A from the Safety Switch.
3. Remove the two screws securing the Switch to the Tray frame, and remove the Switch.

Replacement

1. Reinstall the Middle Tray Safety Switch onto the Middle Tray Front Cover.
2. Make sure the Switch Actuator is under the plastic Link.
3. Use two screws to secure the Switch to the Tray frame.
4. Reconnect J285A to the Safety Switch.
5. Reinstall the Middle Tray Front Cover (RRP 6.28).

RRP 6.36 Top Tray Assembly (PL 18.6)



SER756XA

RRP 6.36 Top Tray Assembly (PL 18.6)

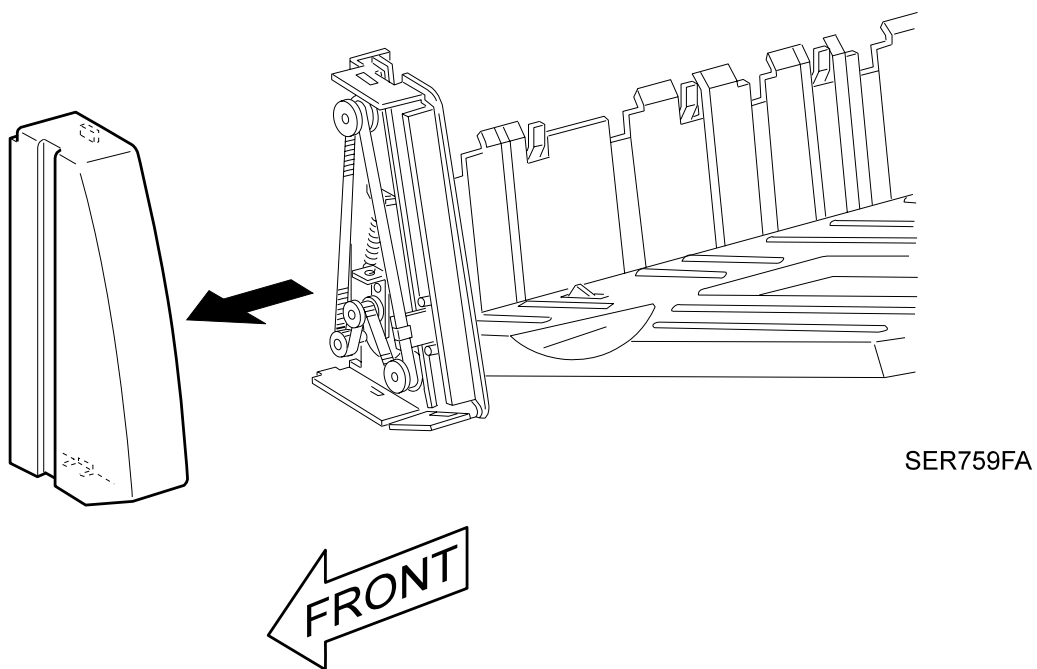
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Harness Cover (RRP 6.9).
3. Remove the top Harness Guide Cover.
4. Free the wire harnesses in the Harness Guide, from the harness clips.
5. Disconnect J255, J292A, J294A, J295A, and J296A.
6. Remove the screw securing the bottom Harness Guide, and remove the Guide.
7. Remove the two screws, located at the bottom of the Top Tray Assembly, securing the Assembly to the HCS frame.
8. Loosen the two screws, located at the top of the Top Tray Assembly, securing the Assembly to the HCS frame.
9. Lift the Top Tray Assembly off of the top screws, and remove the Assembly from the HCS frame.

Replacement

1. Reinstall the Top Tray Assembly by hooking the keyhole screw holes at the top of the Assembly over the two screws on the HCS frame.
2. Tighten the two top screws.
3. Use two screws to secure the bottom of the Assembly to the HCS frame.
4. Route the Top Tray Assembly wire harness into the slot in the bottom Harness Guide.
5. Reinstall the top Harness Guide, and use one screw to secure it to the HCS frame.
6. Reconnect J255, J292A, J294A, J295A, and J296A.
7. Reinstall the top Harness Guide Cover (RRP 6.9). It snaps into place.
8. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.37 Top Tray Front Cover (PL 18.6)



SER759FA

RRP 6.37 Top Tray Front Cover (PL 18.6)

Removal

1. Remove the Top Tray Assembly (RRP 6.35).
2. Pry up the Bottom of the Front Cover, and remove the Cover.

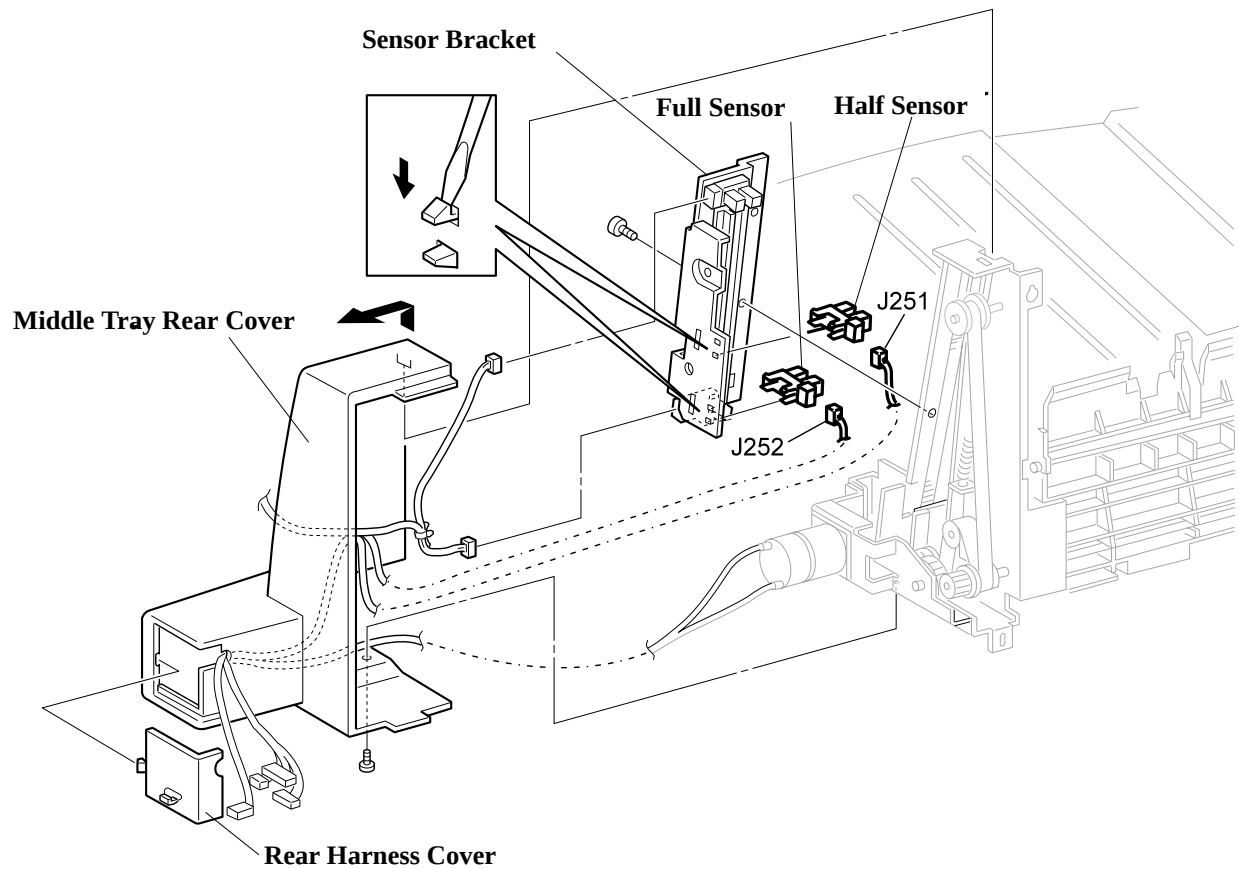
Replacement

1. Reinstall the Front Cover onto the Top Tray.

The Cover snaps into place.

2. Reinstall the Top Tray Assembly (RRP 6.35).

RRP 6.38 Top Tray Half and Full Sensors (PL 18.6)



SER811XB

RRP 6.38 Top Tray Half and Full Sensors (PL 18.6)

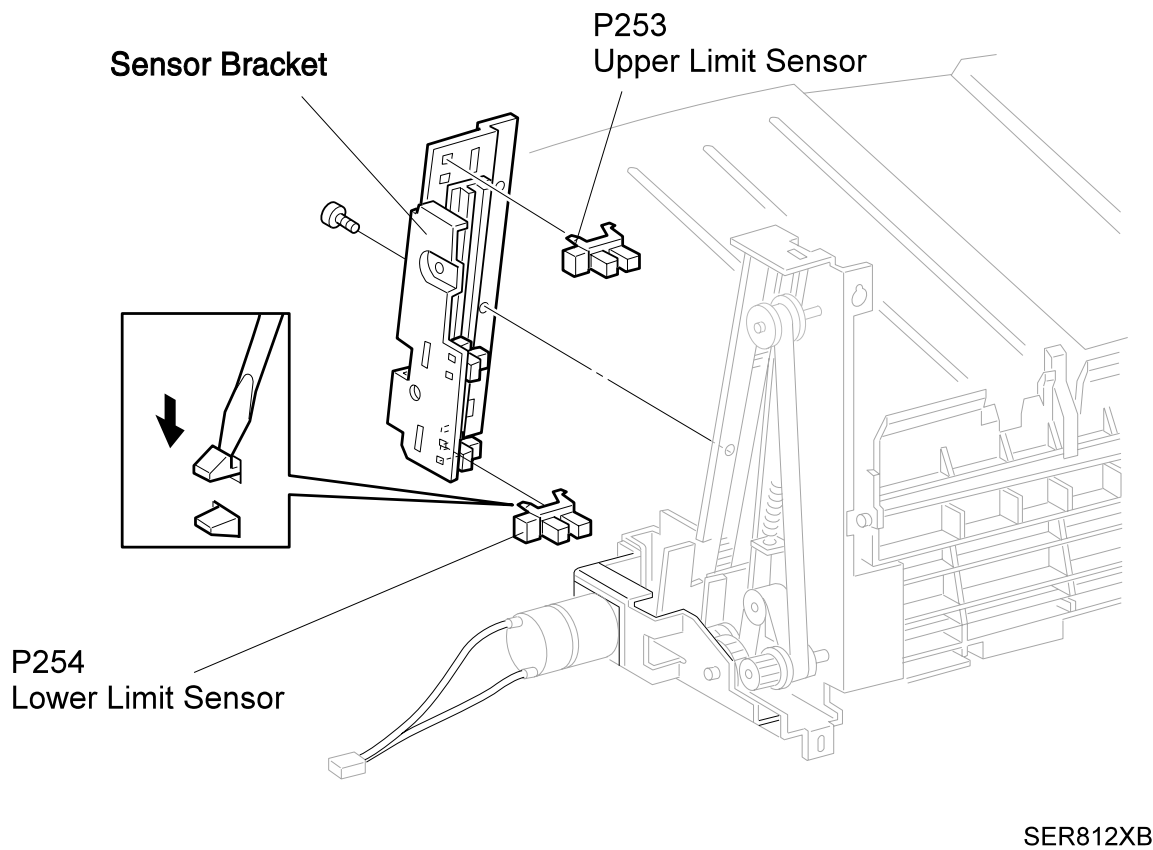
Removal

1. Remove the Top Tray Assembly (RRP 6.36).
2. Slide the Rear Harness Cover off of the Top Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Top Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
6. Disconnect P251 from the Half Sensor.
7. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.
8. Disconnect P252 from the Full Sensor.
9. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Full Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P252 to the Full Sensor.
3. Position the Half Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
4. Reconnect P251 to the Full Sensor.
5. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure it to the frame.
6. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
7. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
8. Reinstall the Top Tray Assembly (RRP 6.36).

RRP 6.39 Top Tray Lower & Upper Limit Sensors (PL 18.6)



SER812XB

RRP 6.39 Top Tray Lower & Upper Limit Sensors (PL 18.6)

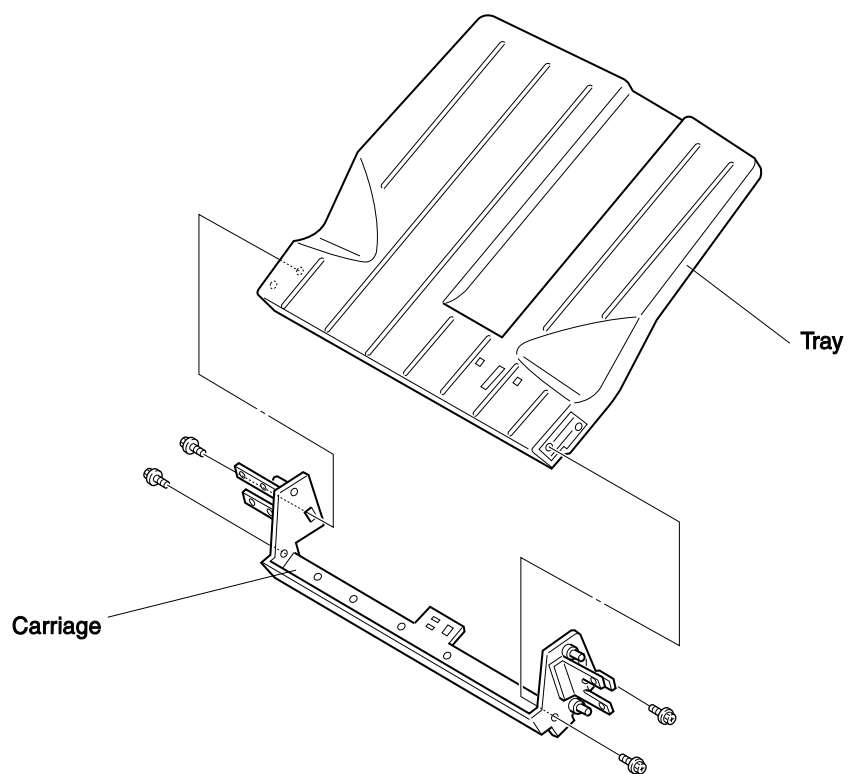
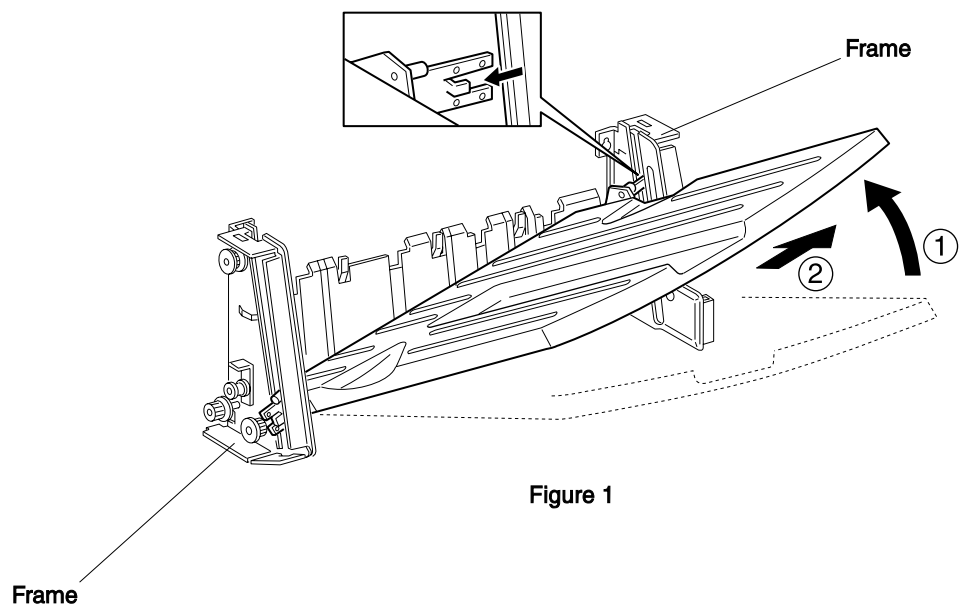
Removal

1. Remove the Top Tray Assembly (RRP 6.36).
2. Slide the Rear Harness Cover off of the Top Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Top Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
6. Disconnect P253 from the Upper Limit Sensor.
7. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.
8. Disconnect P254 from the Lower Limit Sensor.
9. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Lower Limit Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P254 to the Lower Limit Sensor.
3. Position the Upper Limit Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
4. Reconnect P253 to the Upper Limit Sensor.
5. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure it to the frame.
6. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
7. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
8. Reinstall the Top Tray Assembly (RRP 6.36).

RRP 6.40 Top Tray (PL 18.6)



SER765XB

SER765XB

RRP 6.40 Top Tray (PL 18.6)

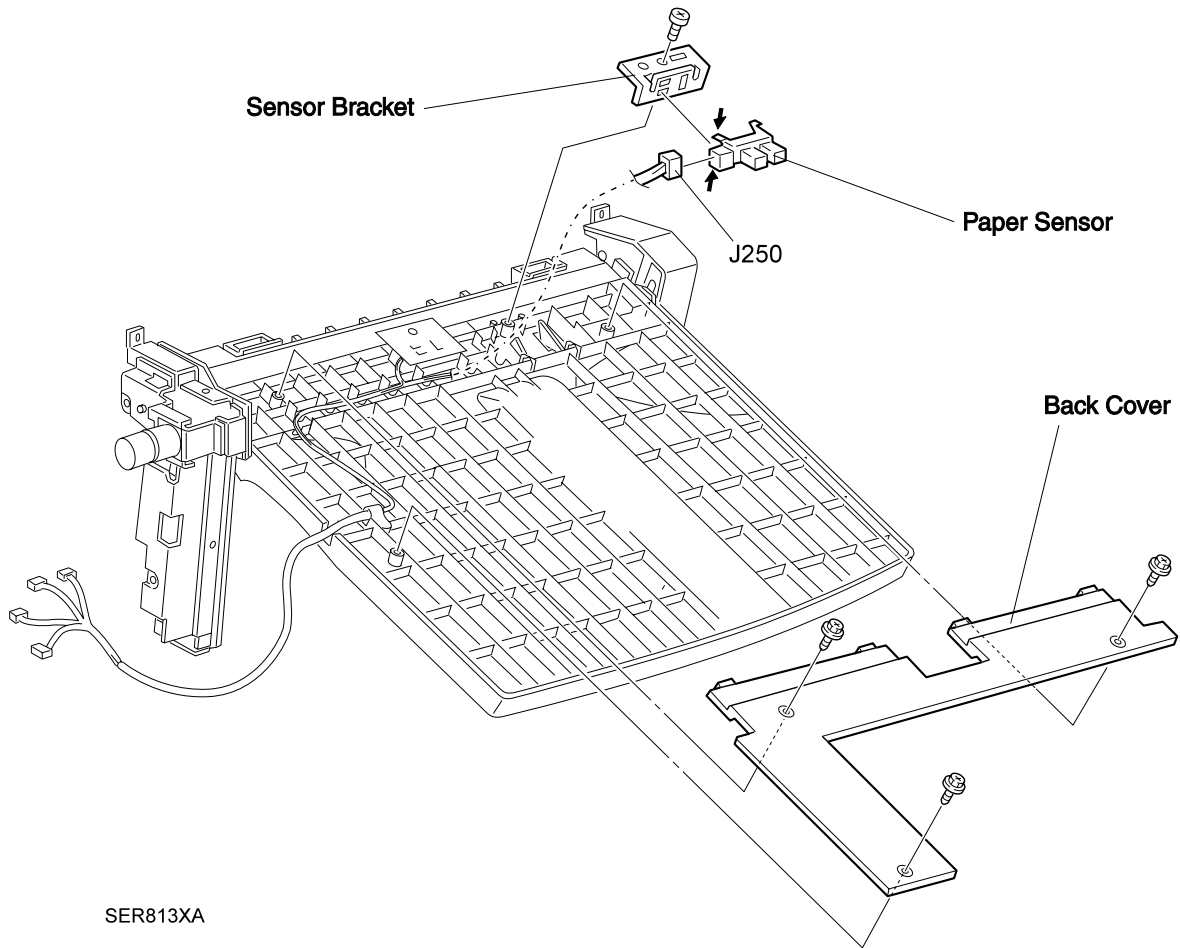
Removal

1. Remove the Top Tray Assembly (RRP 6.36).
2. Remove both Top Tray Drive Belts (RRP 6.43).
3. Remove the Top Tray Paper Sensor (RRP 6.41) and Sensor Actuator.
4. Remove the screw securing the Sensor wire harness to the underside of the Tray, and remove the harness.
5. Slide the Tray out of the slots in the Front and Rear Tray Frames, and remove the Tray (Figure 1).
6. Remove the four screws securing the Carriage to the Tray, and remove the Tray (Figure 2).

Replacement

1. Reinstall the Carriage onto the Tray, and use four screws to secure the Carriage.
2. Reinstall the Tray into the slots in the Front and Rear Tray Frames.
3. Reinstall the Sensor wire harness to the underside of the Tray, and use one screw to secure the harness.
4. Reinstall the Top Tray Paper Sensor (RRP 6.41) and Sensor Actuator.
5. Reinstall both Top Tray Drive Belts (RRP 6.43).
6. Reinstall the Top Tray Assembly (RRP 6.36).

RRP 6.41 Top Tray Paper Sensor (PL 18.6)



SER813XA

RRP 6.41 Top Tray Paper Sensor (PL 18.6)

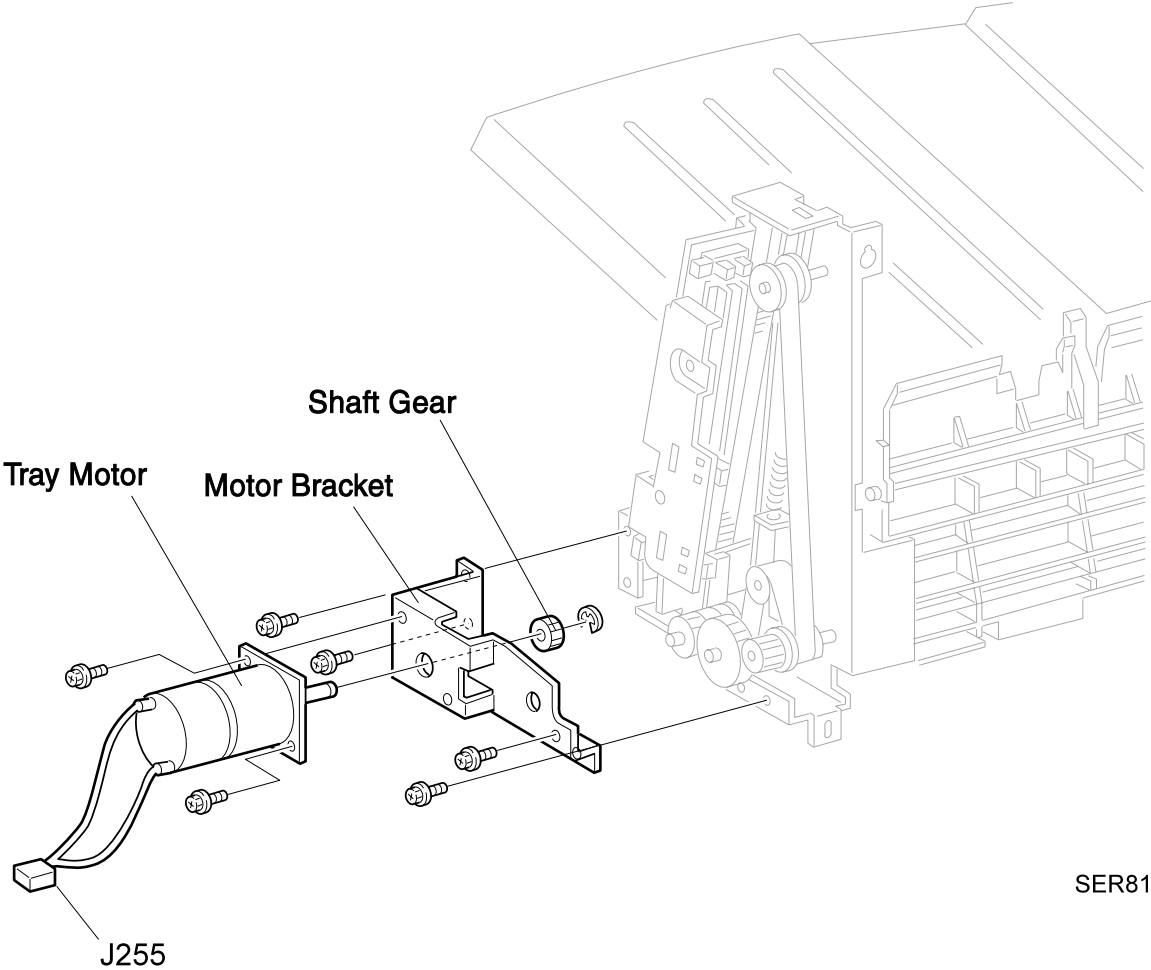
Removal

1. Remove the Top Tray Assembly (RRP 6.36).
2. Remove the three screws securing the Back Cover to the Tray, and remove the Cover.
3. Remove the screw securing the Paper Sensor Bracket to the Tray, and remove the Bracket along with the attached Paper Sensor.
4. Disconnect J250 from the Sensor.
5. Press in and release the Sensor latches that are securing the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Top Tray Paper Sensor as shown in the figure, and insert in, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect J250 to the Sensor.
3. Reinstall the Sensor Bracket onto the Tray, making sure you align the position holes in the Bracket with the positioning tabs on the Tray.
4. Use one screw to secure the Bracket to the Tray.
5. Reinstall the Back Cover to the Tray, and use three screws to secure the Cover.
6. Reinstall the Top Tray Assembly (RRP 6.36).

RRP 6.42 Top Tray Motor (PL 18.6)



SER814XB

SER814XB

RRP 6.42 Top Tray Motor (PL 18.6)

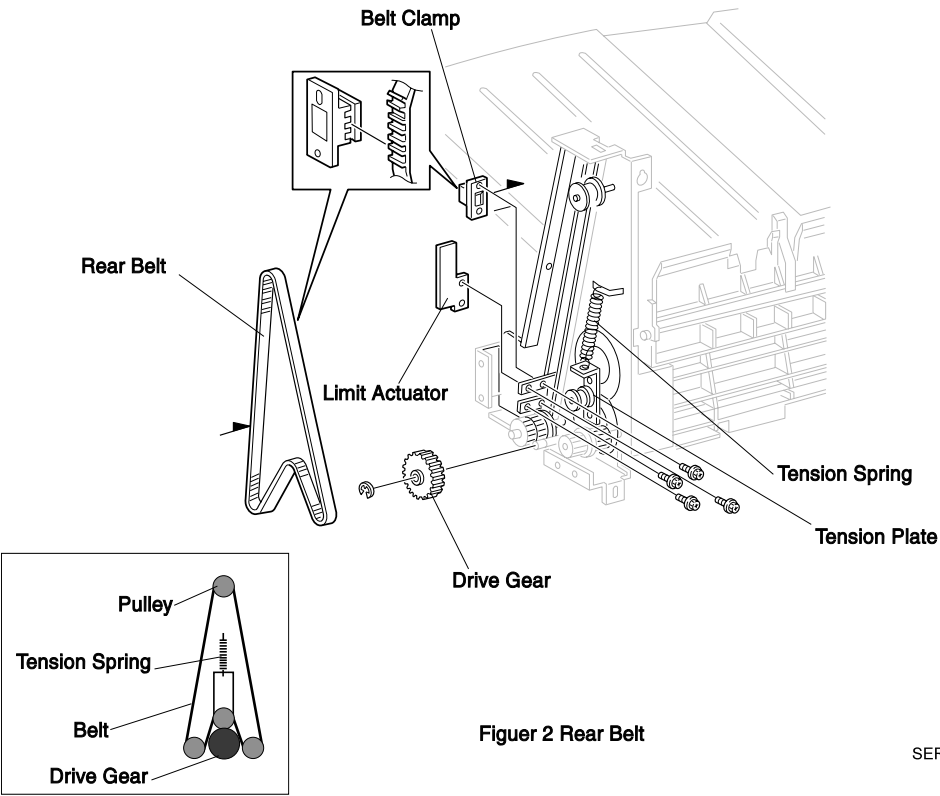
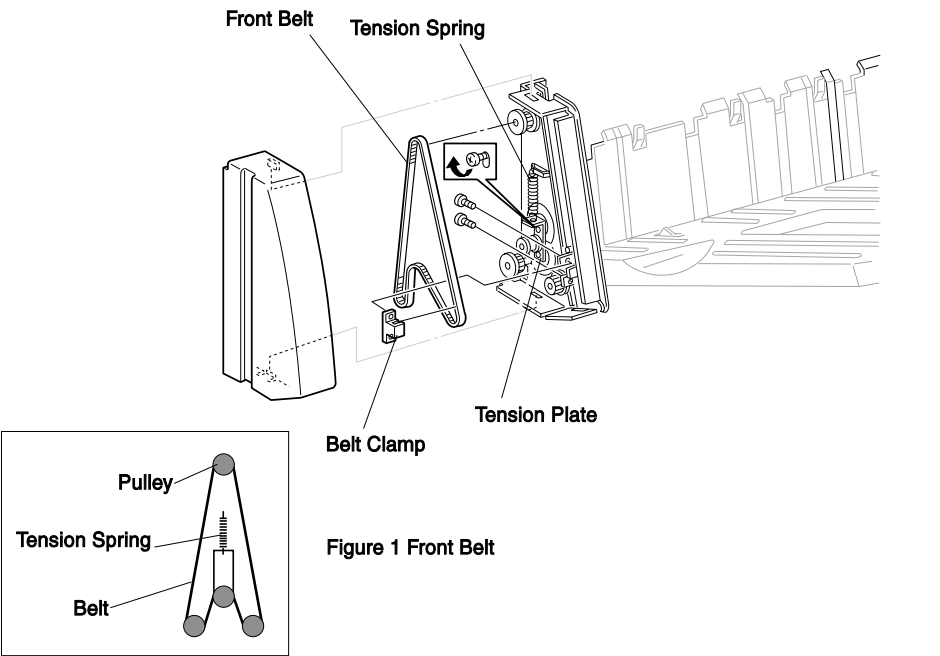
Removal

1. Remove the Top Tray Assembly (RRP 6.36).
2. Slide the Rear Harness Cover off of the Top Tray Rear Cover.
3. Remove the screw, located under the Rear Cover, securing the Top Tray Rear Cover to the Tray frame.
4. Release the latch at the top of the Rear Cover, and remove the Cover.
5. Remove the four screws securing the Motor Bracket to the Tray, and remove the Bracket and attached Motor.
6. Remove the E ring securing the Gear to the Motor shaft, and remove the Gear.
7. Remove the two screws securing the Motor to the Bracket, and remove the Motor.

Replacement

1. Reinstall the Motor to the Motor Bracket, and use two screws to secure the Motor.
2. Reinstall the Gear onto the end of the Motor shaft.
3. Use an E ring to secure the Gear to the shaft.
4. Reinstall the Motor Bracket and attached Motor to the Tray frame, and use four screws to secure the Bracket.
5. Reinstall the Rear Cover by first latching the top of the Cover, then by using one screw to secure Cover to the Tray frame.
6. Route the wire harness through the opening at the rear of the Cover and slide the Rear Harness Cover into place.
7. Reinstall the Top Tray Assembly (RRP 6.36).

RRP 6.43 Top Tray Drive Belts (PL 18.7)



SER815XB

SER815XB

RRP 6.43 Top Tray Drive Belts (PL 18.7)

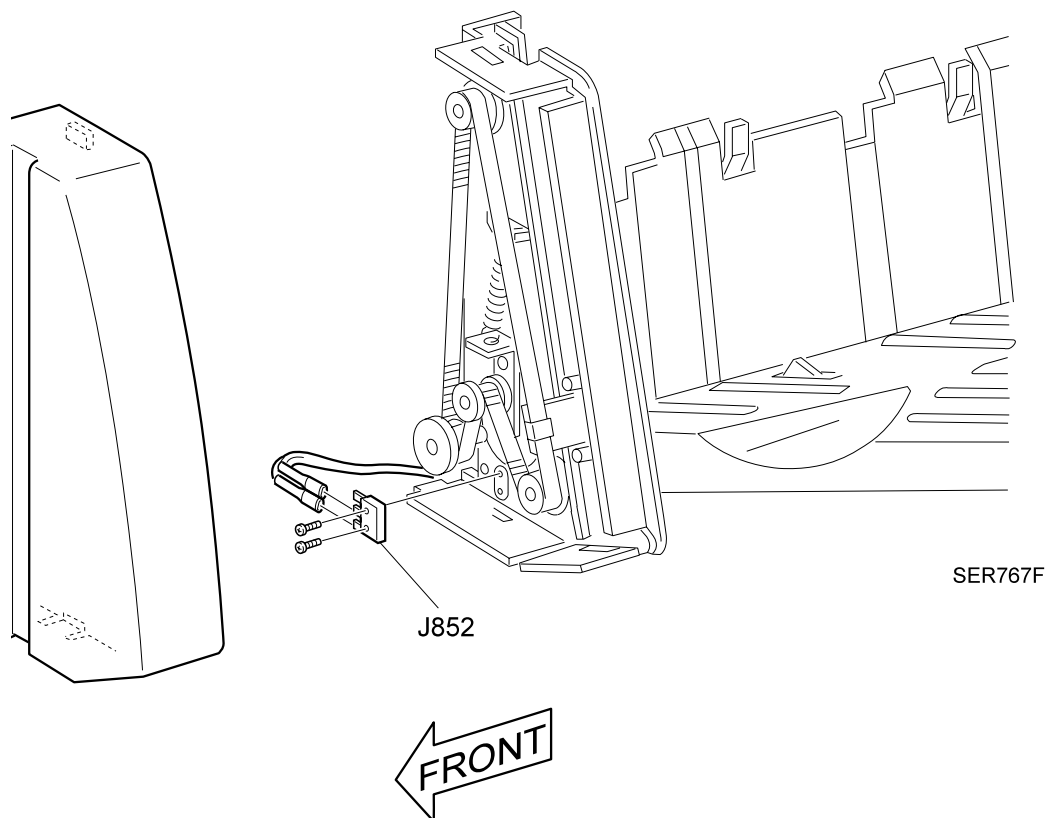
Removal

1. Remove the Top Tray Assembly (RRP 6.36).
2. Remove the Top Tray Front Cover (RRP 6.37).
3. Unhook the Tension Spring from the Tension Plate (Figure 1).
4. Remove the two screws securing the Tension Plate to the Tray frame, and remove the Plate.
5. Remove the two screws securing the Belt Clamp to the Tray, and remove the Clamp.
6. Slide the Belt out of the Clamp.
7. Remove the E ring secure the Drive Gear to the shaft, and remove the Drive Gear.
8. Remove the Front Drive Belt.
9. Remove the Top Tray Motor (RRP 6.42).
10. Remove the screw securing the Sensor Bracket to the Tray frame, and remove the Bracket.
11. Unhook the Tension Spring from the Tension Plate (Figure 2).
12. Remove the two screws securing the Limit Actuator to the Tray frame, and remove the Actuator.
13. Remove the two screws securing the Tension Plate to the Tray frame, and remove the Plate.
14. Remove the two screws securing the Belt Clamp to the Tray, and remove the Clamp.
15. Slide the Belt out of the Clamp.
16. Remove the E ring secure the Drive Gear to the shaft, and remove the Drive Gear.
17. Remove the Rear Drive Belt.

Replacement

1. Reinstall the Rear Drive Belt according to the Figure 2 inset.
2. Reinstall the Drive Gear to the shaft, and use an E ring to secure the Gear.
3. Slide the Rear Belt into the Clamp.
4. Use two screws to secure the Clamp to the Tray frame.
5. Reinstall the Tension Plat to the frame, and use two screws to secure the Plate.
6. Reinstall the Limit Actuator to the frame, and use two screws to secure the Actuator.
7. Hook the Tension Spring onto the Tension Plate.
8. Reinstall the Sensor Bracket to the Tray frame, and use one screw to secure the Bracket.
9. Reinstall the Top Tray Motor (RRP 6.42).
10. Reinstall the Front Drive Belt according to the Figure 1 inset.
11. Slide the Rear Belt into the Clamp.
12. Use two screws to secure the Clamp to the Tray frame.
13. Reinstall the Tension Plat to the frame, and use two screws to secure the Plate.
14. Hook the Tension Spring onto the Tension Plate.
15. Reinstall the Top Tray Front Cover (RRP 6.37).
16. Reinstall the Top Tray Assembly (RRP 6.36).

RRP 6.44 Top Tray Safety Switch (PL 18.7)



SER767F

RRP 6.44 Top Tray Safety Switch (PL 18.7)

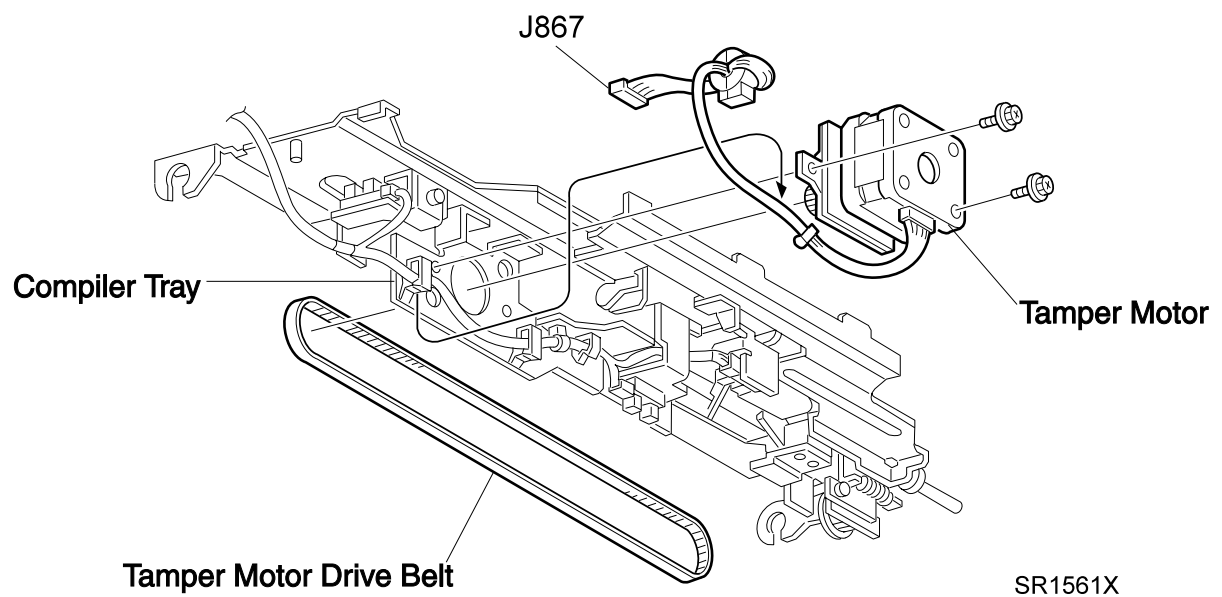
Removal

1. Remove the Top Tray Front Cover (RRP 6.37).
2. Disconnect J852 from the Safety Switch.
3. Remove the two screws securing the Switch to the Tray frame, and remove the Switch.

Replacement

1. Reinstall the Top Tray Safety Switch onto the Top Tray Front Cover.
2. Make sure the Switch Actuator is under the plastic Link.
3. Use two screws to secure the Switch to the Tray frame.
4. Reconnect J852 to the Safety Switch.
5. Reinstall the Top Tray Front Cover (RRP 6.37).

RRP 6.45 Tamper Motor (PL 19.1)



SR1561X

RRP 6.45 Tamper Motor (PL 19.1)

Removal

1. Lower the Stacker Elevator so the Bottom Tray is at the lowest possible position.
2. Separate the HCS from the printer (RRP 6.1).
3. Remove the L/H Cover (RRP 6.5).
4. Remove the four screws securing the Tie Plate (PL19.2.20) to the HCS frame, and remove the Tie Plate.
5. Remove the Top Tray (RRP 6.36).
6. Remove the four screws securing the Eject Roll Chute (PL19.1.24) to the HCS frame, and remove the Chute.

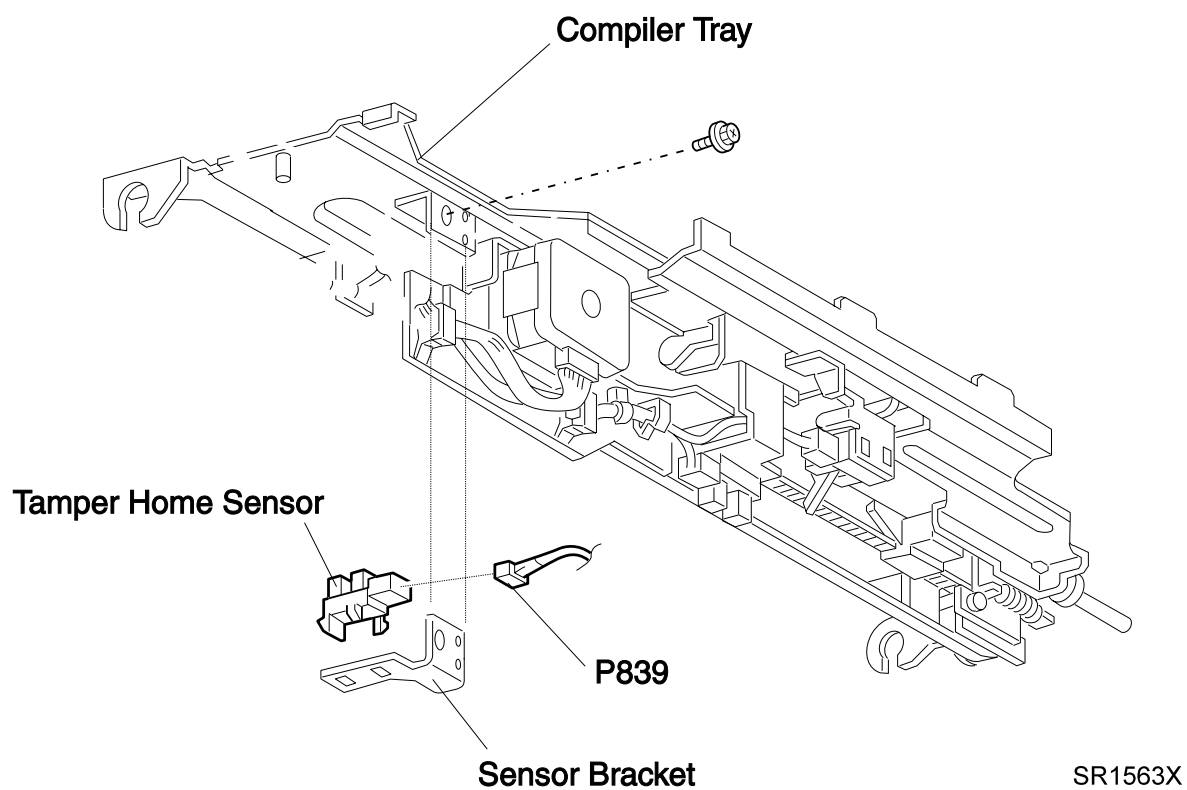
The Eject Roll Chute is located immediately behind the Top Tray. The Eject Roll Chute has seven plastic fingers that ride on the Eject Shaft Assembly 1.

7. Accessing the rear of the Tamper Motor, remove the two screws that secure the Motor to the Compiler Tray.
8. Slip the Tamper Motor Drive Belt off of the Motor Pulley, and remove the Motor.
9. Disconnect J867.

Replacement

1. Reconnect J867.
2. Reinstall the Tamper Motor onto the Compiler Tray.
3. Slip the Tamper Motor Drive Belt over the Motor Pulley.
4. Reposition the Motor so it presses firmly against the Compiler Tray and the Motor Pulley does not rub against the Tray.
5. Use two screws to secure the Motor to the Compiler Tray.
6. Reinstall the Eject Roll Chute to the HCS frame, and use four screws to secure it to the frame.
7. Reinstall the Top Tray (RRP 6.36).
8. Reinstall the Tie Plate onto the HCS frame, and use four screws to secure it to the frame.
9. Reinstall the L/H Cover (RRP 6.5).
10. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.46 Tamper Home Sensor (PL 19.1)



SR1563X

RRP 6.46 Tamper Home Sensor (PL 19.1)

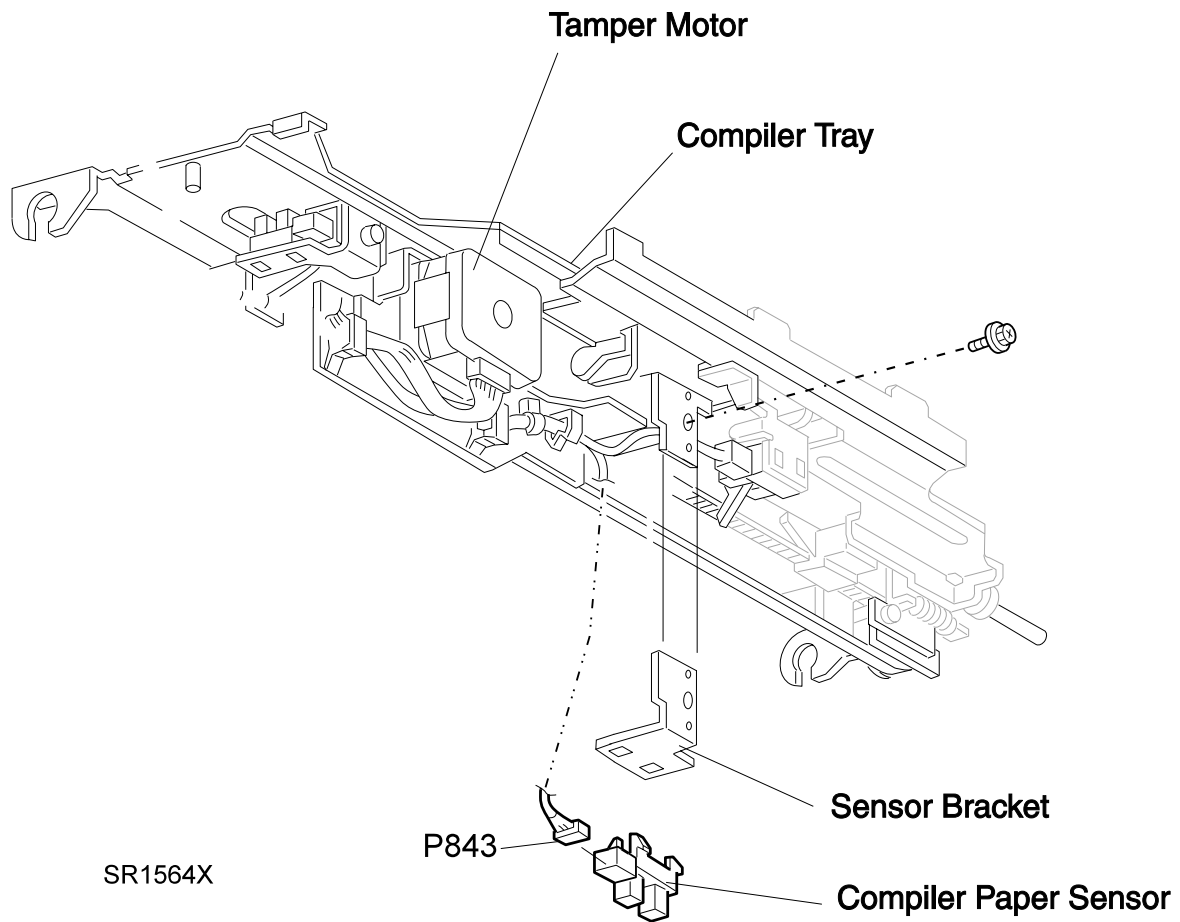
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the L/H Cover (RRP 6.5).
3. Remove the four screws securing the Tie Plate (PL19.2.20) to the HCS frame, and remove the Tie Plate.
4. Remove the screw securing the Tamper Home Sensor Bracket to the Compiler Tray, and remove the Bracket along with the Tamper Home Sensor.
5. Disconnect P839 from the Sensor.
6. Press in and release the Sensor latches that are securing the Sensor the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Tamper Home Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P839 to the Sensor
3. Reinstall the Tamper Home Sensor Bracket onto the Compiler Tray, and use one screw to secure the Bracket.
4. Reinstall the Tie Plate to the HCS frame, and use four screws to secure the Tie Plate.
5. Reinstall the L/H Cover (RRP 6.5).
6. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.47 Compiler Paper Sensor (PL 19.1)



SR1564X

RRP 6.47 Compiler Paper Sensor (PL 19.1)

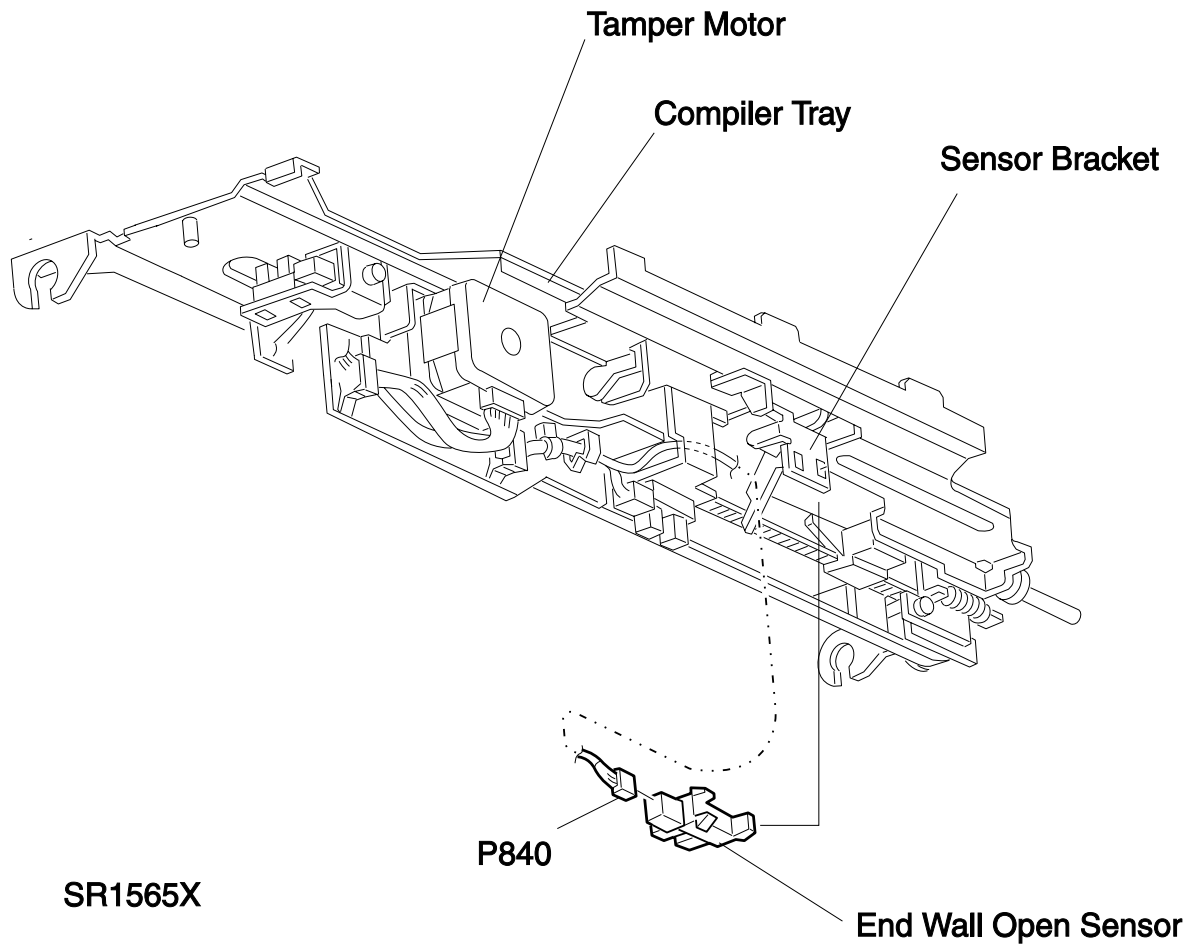
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the L/H Cover (RRP 6.5).
3. Remove the four screws securing the Tie Plate (PL19.2.20) to the HCS frame, and remove the Tie Plate.
4. Remove the screw securing the Compiler Paper Sensor Bracket to the Compiler Tray, and remove the Bracket along with the Compiler Paper Sensor.
5. Disconnect P843 from the Sensor.
6. Press in and release the Sensor latches that are securing the Sensor the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Compiler Paper Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
2. Reconnect P843 to the Sensor
3. Reinstall the Compiler Paper Sensor Bracket onto the Compiler Tray, and use one screw to secure the Bracket.
4. Reinstall the Tie Plate to the HCS frame, and use four screws to secure the Tie Plate.
5. Reinstall the L/H Cover (RRP 6.5).
6. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.48 End Wall Open Sensor (PL 19.1)



SR1565X

RRP 6.48 End Wall Open Sensor (PL 19.1)

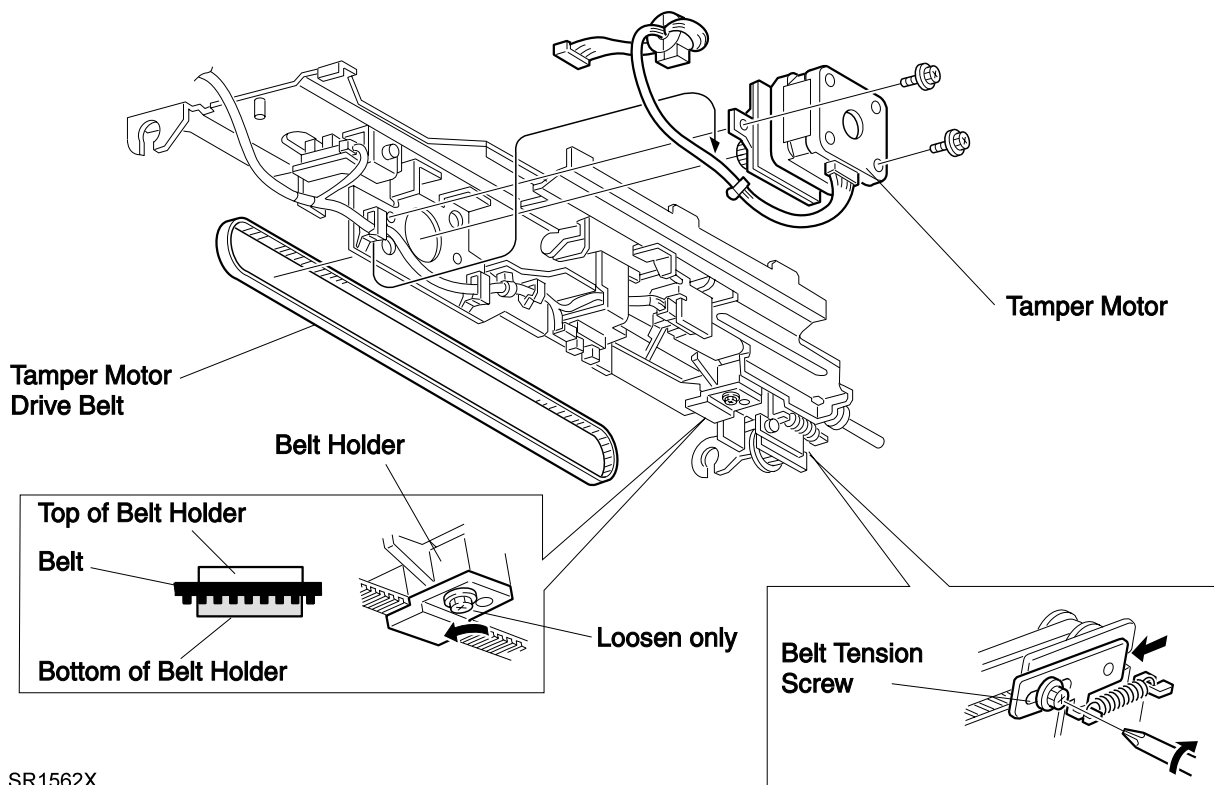
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the L/H Cover (RRP 6.5).
3. Remove the four screws securing the Tie Plate (PL19.2.20) to the HCS frame, and remove the Tie Plate.
4. Press in and release the Sensor latches that are securing the Sensor the Sensor to the Bracket, and remove the Sensor.
5. Disconnect P840 from the Sensor.

Replacement

1. Reconnect P840 to the Sensor
2. Position the End Wall Open Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.
3. Reinstall the Tie Plate to the HCS frame, and use four screws to secure the Tie Plate.
4. Reinstall the L/H Cover (RRP 6.5).
5. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.49 Tamper Motor Drive Belt (PL 19.1)



SR1562X

SR1562X

RRP 6.49 Tamper Motor Drive Belt (PL 19.1)

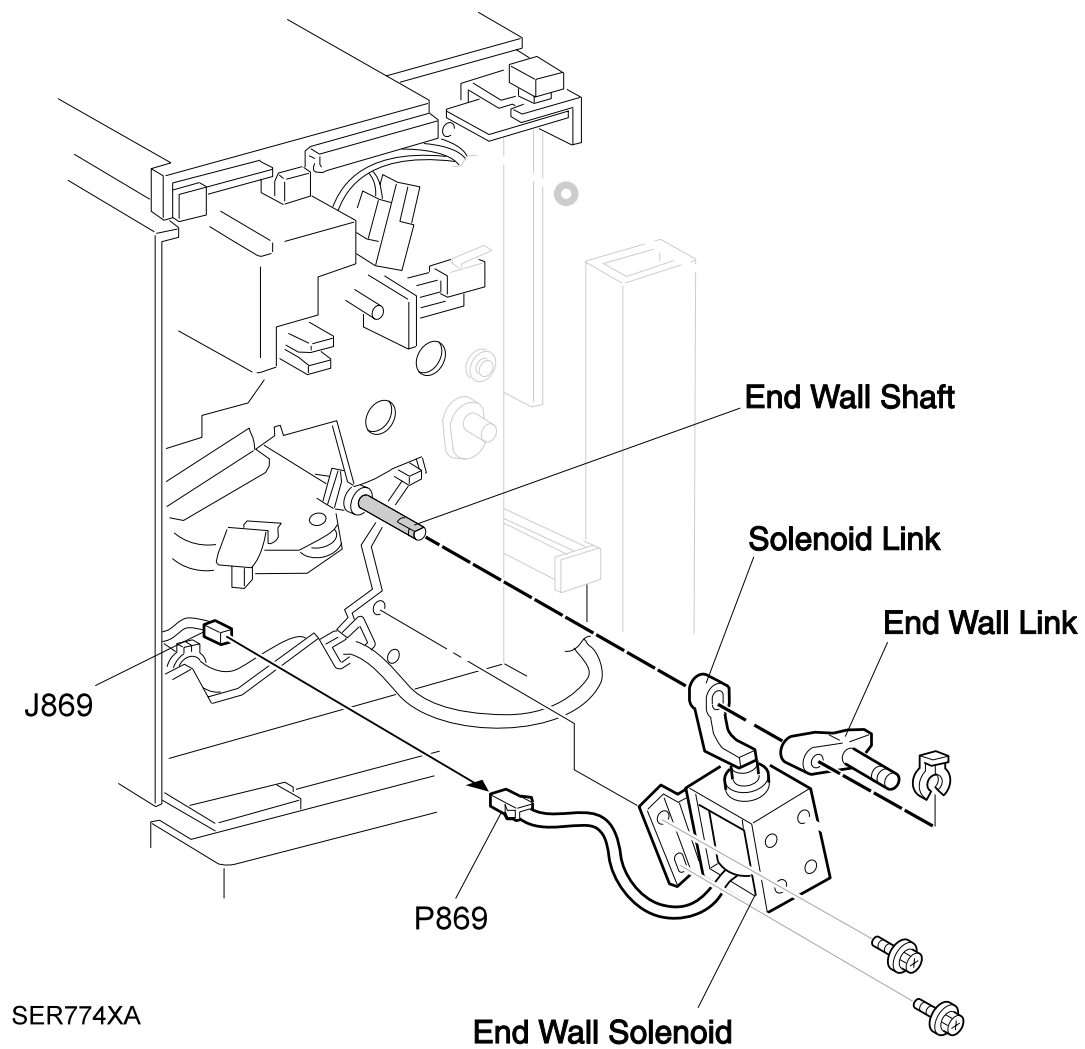
Removal

1. Remove the Tamper Motor (RRP 6.45).
2. Loosen, do not remove, the screw on the Belt Holder, and slip the Belt out of the holder.
3. Slip the Belt off of the Tension Pulley, and remove the Belt.

Replacement

1. Position the Tamper Motor Drive Belt so the ribs are on the inside of the Belt loop.
2. Slip the Belt over the Tension Pulley.
3. Insert the Belt between the Top and Bottom of the Belt Holder, and tighten the screw on the Belt Holder.
4. Reinstall the Tamper Motor (RRP 6.45), but stop at step 6.
5. Adjust the Belt Tension Screw so the Belt is just tight enough so it will not ride off of the pulleys when the Tamper Motor is running.
6. Start at step 6 of RRP 6.45 and complete the Tamper Motor replacement.

RRP 6.50 Compiler Tray Solenoid Assembly (PL 19.1)



SER774XA

RRP 6.50 Compiler Tray Solenoid Assembly (PL 19.1)

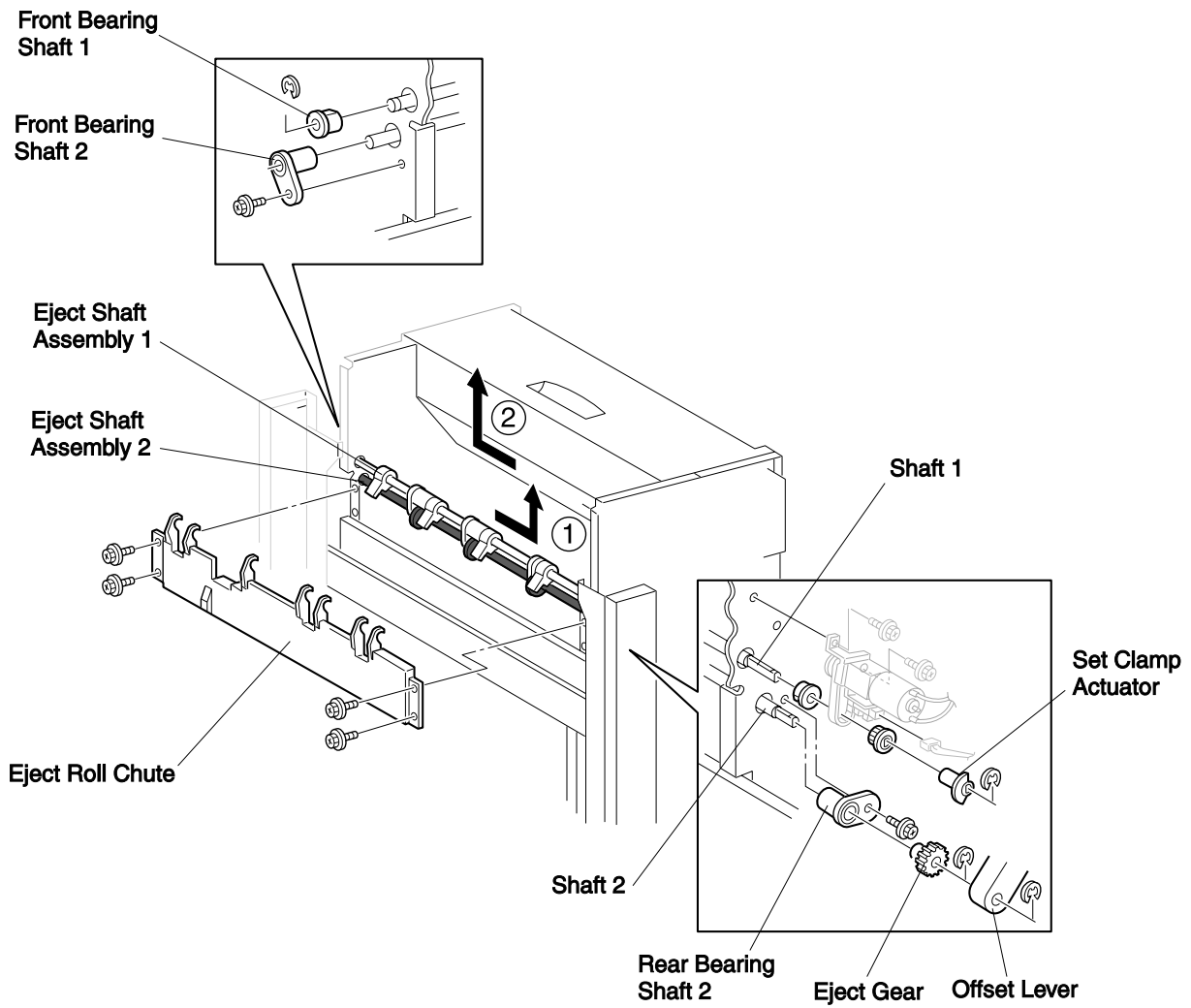
Removal

1. Remove the End Wall Motor (RRP 6.68).
2. Remove the K Clip securing the End Wall Link to the End Wall Shaft, and slide the Link off of the Shaft.
3. Remove the two screws securing the Compiler Tray Solenoid to the HCS frame.
4. Slide the Solenoid Link off of the End Wall Shaft, and remove the Solenoid.
5. Disconnect P869.

Replacement

1. Reconnect P869.
2. Slide the Solenoid Link onto the End Wall Shaft, and position the Compiler Tray Solenoid against the HCS frame.
3. Use two screws to secure the Solenoid to the frame.
4. Slide the End Wall Link onto the End Wall Shaft, and use a K Clip to secure the Link to the Shaft.
5. Reinstall the End Wall Motor (RRP 6.68).

RRP 6.51 Eject Shaft Assemblies (PL 19.1)



SR1566X

SR1566X

RRP 6.51 Eject Shaft Assemblies (PL 19.1)

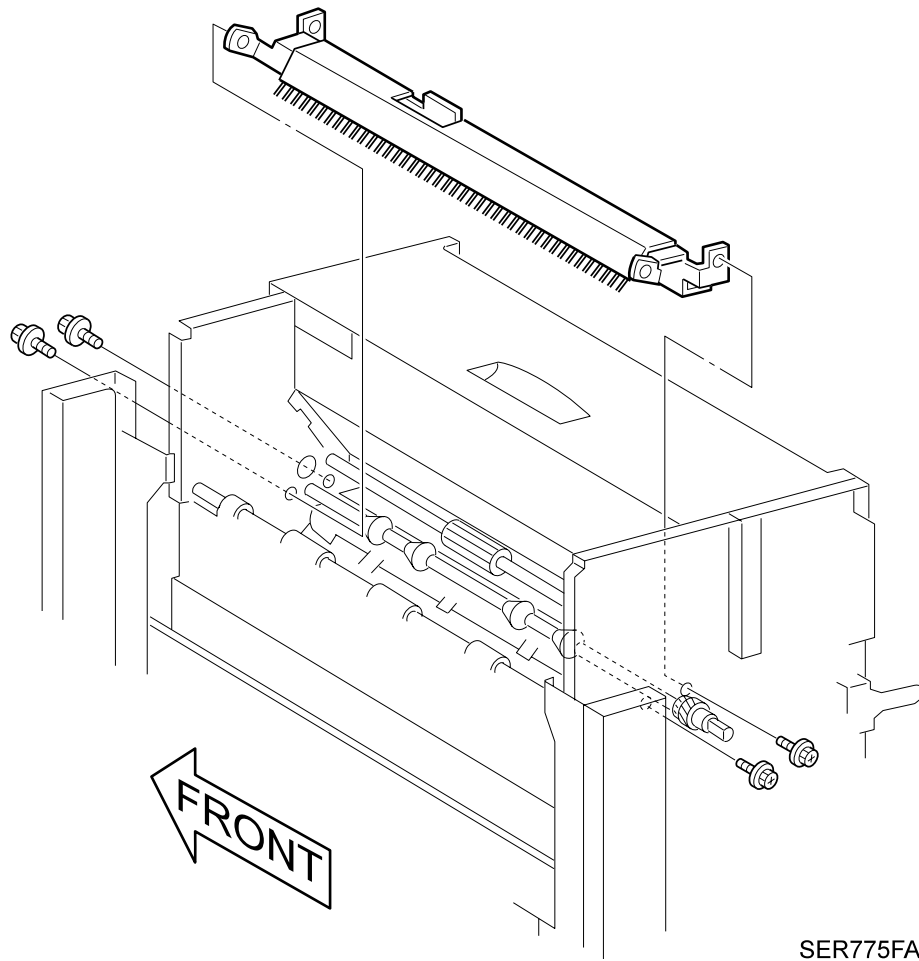
Removal

1. Remove the Eject Cover (RRP 6.7).
2. Remove the Top Tray Assembly (RRP 6.36).
3. Remove the four screws securing the Eject Roll Chute to the HCS, and remove the Chute.
4. Remove the Set Clamp Motor (RRP 6.70).
5. Remove the E ring securing the Set Clamp Actuator to Shaft 1, and remove the Actuator, Pulley, and rear metal bearing.
6. Remove the E ring securing the front metal bearing for Shaft 1, and remove the front bearing.
7. Remove the E ring securing the Offset Lever to Shaft 2, and remove the Offset Lever.
8. Remove the E ring securing the Eject Gear to Shaft 2, and remove the Eject Gear.
9. Remove the screw securing the rear plastic bearing to Shaft 2, and slide the rear bearing off of the Shaft.
10. Remove the screw securing the front plastic bearing to Shaft 2, and slide the front bearing off of the Shaft.
11. Remove Shaft 1 and Shaft 2 (the Eject Shaft Assemblies) as a unit.

Replacement

1. Position the Eject Shaft Assemblies as shown in the figure, and reinstall the Assemblies into the HCS frame.
2. Slide the front and the rear metal bearings over the ends of Shaft 1.
3. Position the Compiler Tray so the arms at the front and rear of the Tray line up with Shaft 1.
4. Slide the front and the rear metal bearings into the bearing cutouts in the HCS frame, and through the arms of the Compiler Tray.
5. Use an E ring to secure the front metal bearing to the front end of Shaft 1.
6. Slide the Pulley and the Set Clamp Actuator over the rear end of Shaft 1, and use an E ring to secure them to the Shaft.
7. Slide the front plastic bearing onto the front end of Shaft 2, and use one screw to secure the bearing to the HCS frame.
8. Slide the rear plastic bearing onto the rear end of Shaft 2, and use one screw to secure the bearing to the HCS frame.
9. Slide the Eject Gear onto the rear end of Shaft 2, and use an E ring to secure the Gear to the Shaft.
10. Slide the Offset Lever over the rear end of Shaft 2, and use an E ring to secure the Offset Lever.
11. Reinstall the Set Clamp Motor (RRP 6.70).
12. Reinstall the Eject Roll Chute to the HCS, and use four screws to secure the Chute.
13. Reinstall the Top Tray Assembly (RRP 6.36).
14. Reinstall the Eject Cover (RRP 6.7).

RRP 6.52 Upper Exit Chute Assembly (PL 19.2)



SER775FA

RRP 6.52 Upper Exit Chute Assembly (PL 19.2)

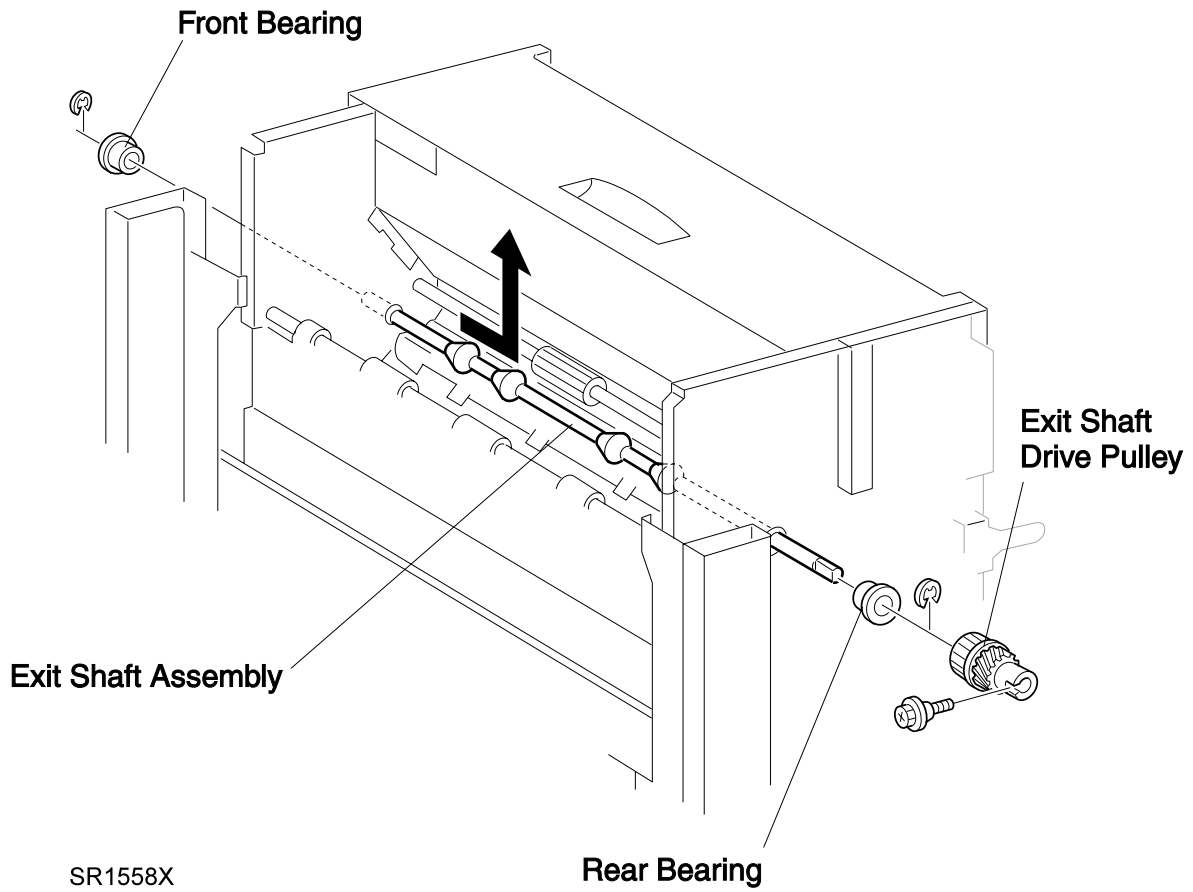
Removal

1. Remove the Eject Pinch Roll Shaft Assembly (RRP 6.56).
2. Remove the screw securing the Finisher Interlock Switch Bracket to the front of the HCS frame, and remove the Bracket so you can access one of the Upper Exit Chute Assembly screws.
3. Remove the two screws securing the Upper Exit Chute Assembly to the front HCS frame.
4. Remove the two screws securing the Upper Exit Chute Assembly to the rear HCS frame.
5. Rotate the Upper Exit Chute Assembly and remove the Assembly from the HCS.

Replacement

1. Reinstall the Upper Exit Chute Assembly into the HCS frame.
2. Align the four screw holes in the Assembly with the four screw holes in the HCS frame.
3. Use two screw to secure the front of the Upper Exit Chute Assembly.
4. Use two screw to secure the rear of the Upper Exit Chute Assembly.
5. Reinstall the Finisher Interlock Switch Bracket to the front of the HCS frame, and use one screw to secure the Bracket.
6. Reinstall the Eject Pinch Roll Shaft Assembly (RRP 6.56).

RRP 6.53 Exit Shaft Assembly (PL 19.2)



SR1558XF

RRP 6.53 Exit Shaft Assembly (PL 19.2)

Removal

1. Remove the Upper Exit Chute Assembly (RRP 6.52).
2. Remove the E ring securing the Paddle Shaft Drive Gear, that is located just below the Exit Shaft Pulley, to the shaft, and remove the Drive Gear.
3. Remove the screw securing the Exit Shaft Pulley to the Shaft, and remove the Pulley.
4. Remove the E rings securing the front and rear Exit Shaft bearings, and remove the bearings.
5. Slide the Exit Shaft Assembly out of the HCS frame.

Replacement

1. Reinstall the Exit Shaft Assembly front and rear bearings into the bearing cutouts at the front and rear of the HCS frame.
2. Slide the rear of the Exit Shaft far enough into the rear bearing so you can slide the front of the shaft into the front bearing.
3. Use an E ring at both ends of the Shaft, to secure the Shaft to the bearings.
4. Reinstall the Exit Shaft Pulley onto the Exit Shaft, and use one screw to secure the Pulley to the Shaft.
5. Reinstall the Paddle Shaft Drive Gear, located just below the Exit Shaft Pulley, and use an E ring to secure the Gear to the Shaft.
6. Reinstall the Upper Exit Chute Assembly (RRP 6.52).

RRP 6.54 Paddle Shaft Assembly (PL 19.2)

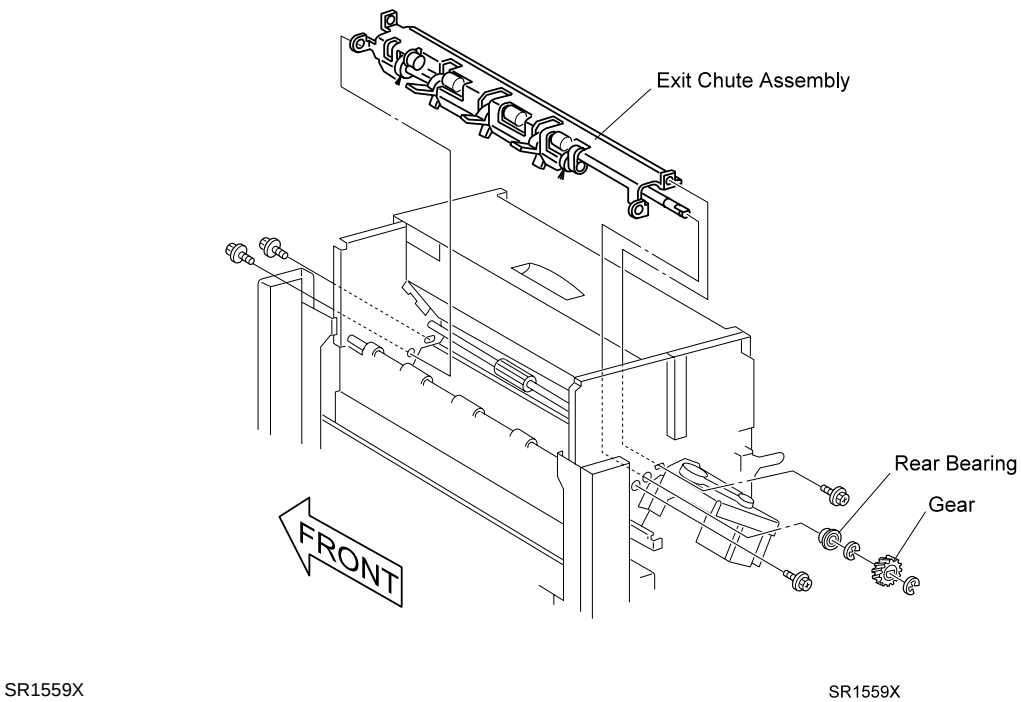


Figure 1

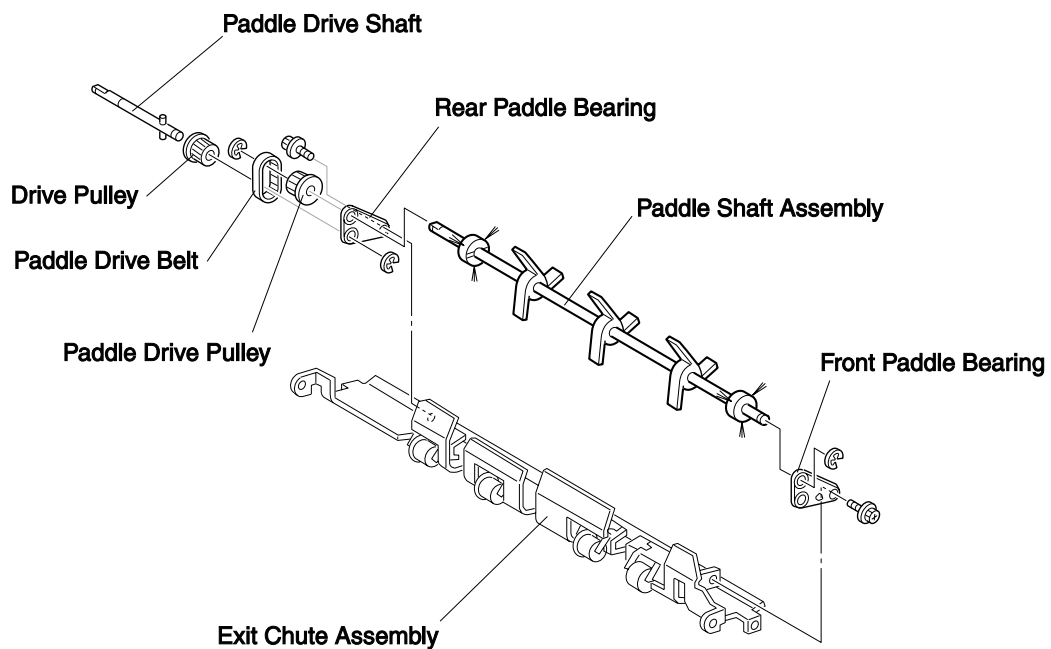


Figure 2

RRP 6.54 Paddle Shaft Assembly (PL 19.2)

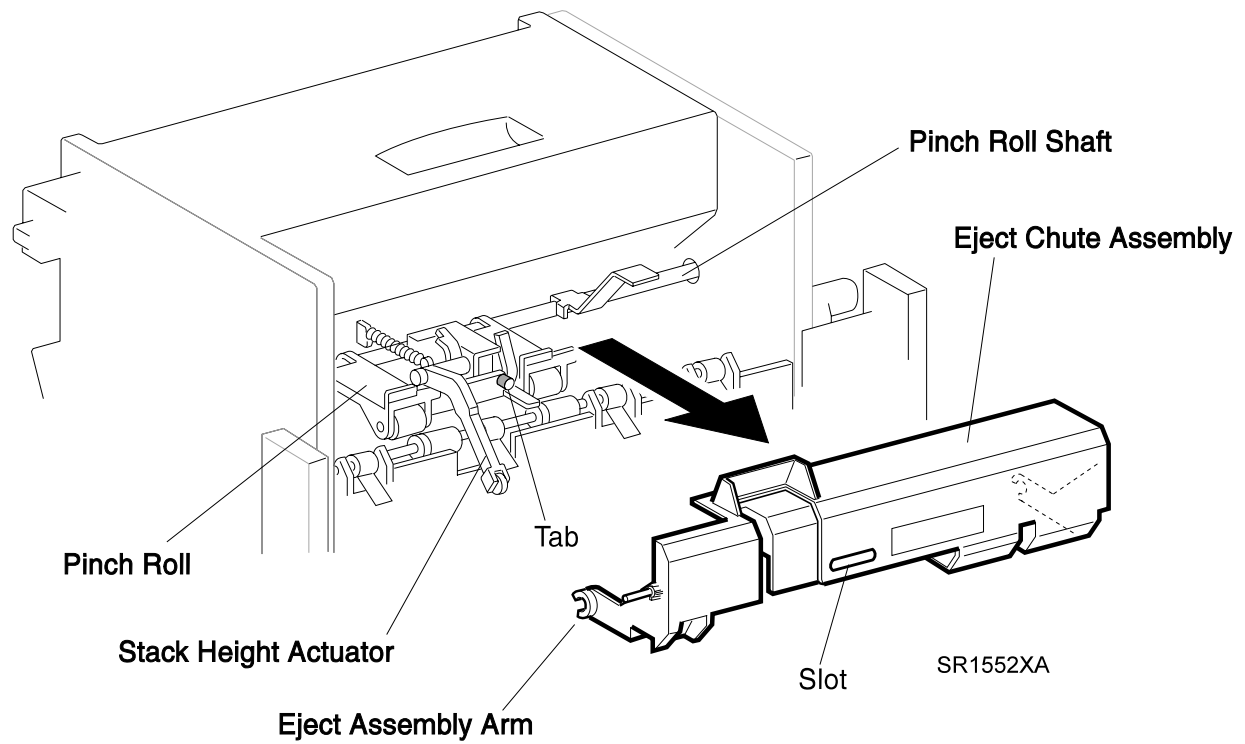
Removal

1. Remove the Exit Shaft Assembly (RRP 6.53).
2. Remove the E ring securing the gear to the Paddle Drive Shaft, and slide the gear off of the Shaft (Figure 1).
3. Remove the E ring securing the rear bearing to the Paddle Drive Shaft, and slide the bearing off of the Shaft.
4. Remove the two screws securing the Exit Chute Assembly to the rear of the HCS frame.
5. Remove the two screws securing the Exit Chute Assembly to the front of the HCS frame.
6. Remove the Exit Chute Assembly and place it on a stable work surface.
7. Remove the E rings from both ends of the Paddle Shaft (Figure 2).
8. Slide the Paddle Drive Belt off of the Paddle Drive Pulley.
9. Slide the Paddle Drive Pulley off of the Paddle Shaft.
10. Remove the screw securing the front Paddle Bearing, and slide the bearing off of the Shaft.
11. Remove the screw securing the rear Paddle Bearing, and remove the bearing, Drive Belt, Drive Shaft, and Paddle Shaft from the Exit Chute Assembly.
12. Slide the Paddle Shaft out of the rear bearing.

Replacement

1. Reinstall the Drive Belt onto the Drive Pulley.
2. Slide the end of the Paddle Shaft into the rear bearing.
3. Install the Paddle Shaft Assembly, along with the attached rear Paddle Bearing, onto the Exit Chute Assembly.
4. Reinstall the front Paddle Bearing by sliding the bearing over the front end of the Paddle Shaft.
5. Use one screw to secure the rear bearing to the Exit Chute.
6. Use one screw to secure the front bearing to the Exit Chute.
7. Slide the Paddle Drive Pulley, with the lip facing in, onto the rear of the Paddle Shaft, and use an E ring to secure the Drive Pulley to the Shaft.
8. Slide the Drive Belt onto the Paddle Drive Pulley.
9. Use an E ring to secure the front of the Paddle Shaft to the front bearing.
10. Reinstall the Exit Chute Assembly onto the HCS frame.
11. Use two screws to secure the Exit Chute Assembly to the front of the HCS frame.
12. Use two screws to secure the Exit Chute Assembly to the rear of the HCS frame.
13. Slide the metal bearing onto the rear of the Paddle Drive Shaft, and use an E ring to secure the bearing to the rear of the HCS.
14. Slide the gear onto the rear of the Paddle Drive Shaft, and use an E ring to secure the gear to the Shaft.
15. Reinstall the Exit Shaft Assembly (RRP 6.53).

RRP 6.55 Eject Chute Assembly (PL 19.3)



SER1552XA

RRP 6.55 Eject Chute Assembly (PL 19.3)

Removal

1. Remove the Eject Cover (RRP 6.7).
2. Remove the screw securing the rear Pinch Roll Bearing to the HCS frame, and slide the Bearing to the rear.
3. Remove the screw securing the front Pinch Roll Bearing to the HCS frame, and slide the Bearing to the front.
4. Remove the Eject Chute Assembly from the HCS frame.

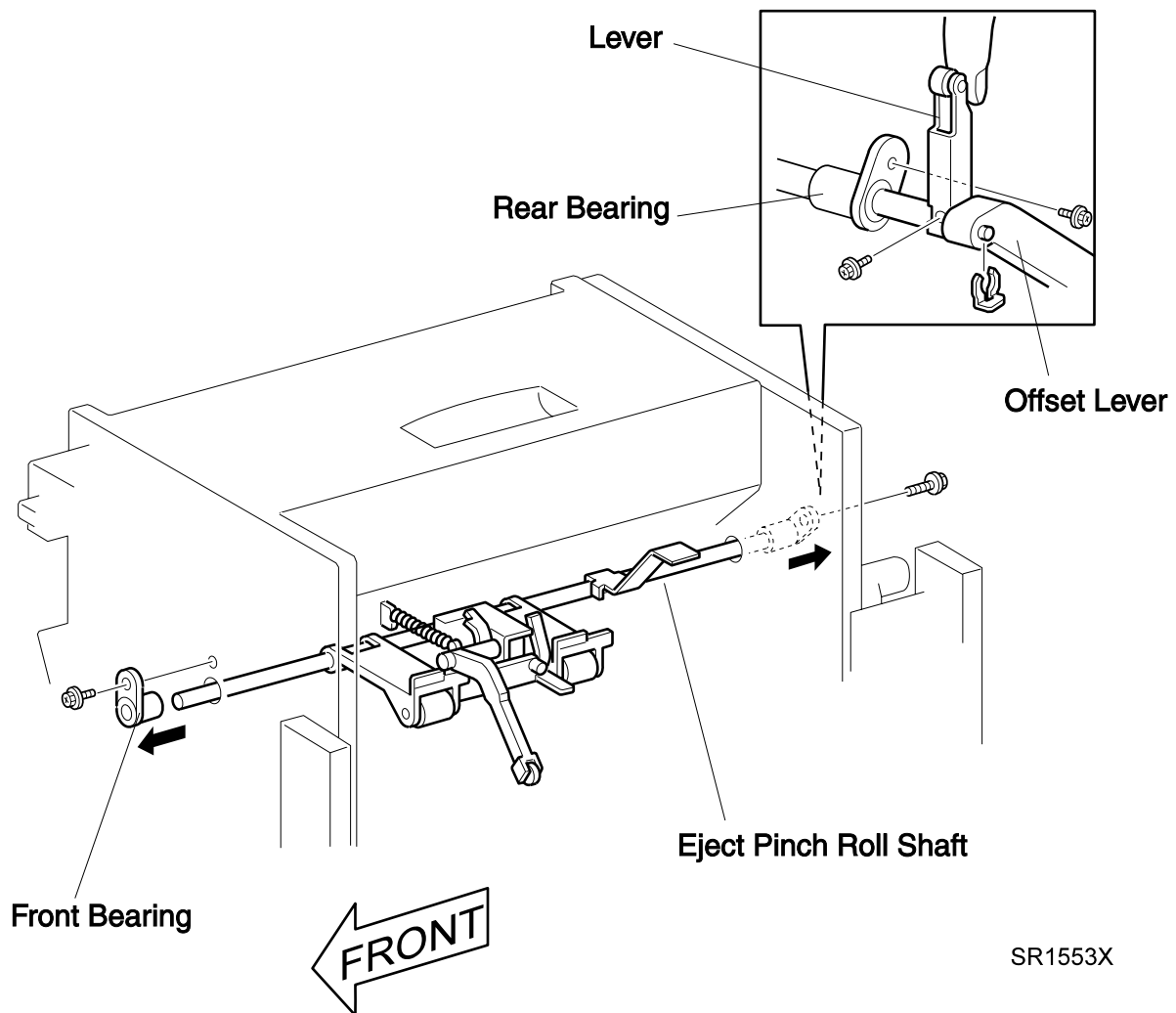
Replacement

1. Position the Eject Chute Assembly as shown in the figure.
2. Reinstall the Eject Chute Assembly by first sliding the Stack Height Actuator and the Pinch Rolls through the cutout in the Assembly.

Make sure the Tab that is located on the Stack Height Actuator slips into the Slot located on the Eject Chute Assembly.

3. Hook the two arms of the Eject Chute Assembly over the Pinch Roll Shaft.
4. Slide the front Pinch Roll Bearing to the rear so the arms of the Eject Chute Assembly ride on the Bearing.
5. Use one screw to secure the Bearing to the HCS frame.
6. Slide the rear Pinch Roll Bearing to the front so the arms of the Eject Chute Assembly ride on the Bearing.
7. Use one screw to secure the Bearing to the HCS frame.
8. Raise and lower the Eject Chute Assembly to make sure it moves freely, and the Stack Height Actuator and Pinch Rolls also move freely.
9. Reinstall the Eject Cover (RRP 6.7).

RRP 6.56 Eject Pinch Roll Shaft Assembly (PL 19.3)



SR1553X

RRP 6.56 Eject Pinch Roll Shaft Assembly (PL 19.3)

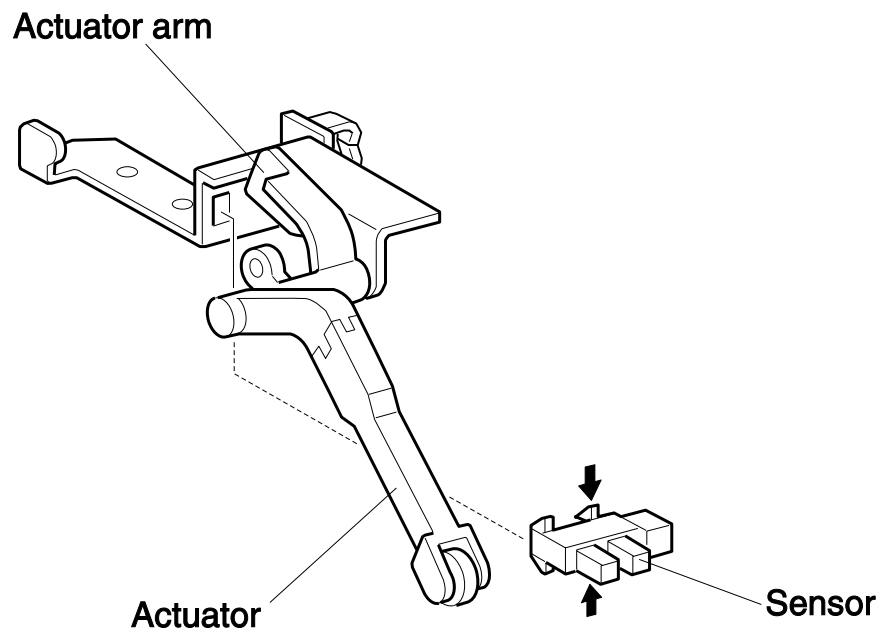
Removal

1. Remove the Eject Chute Assembly (RRP 6.55).
2. Disconnect J832 from the Stack Height Sensor.
3. Remove the E ring securing the Offset Lever to the rear of the Eject Pinch Roll Shaft.
4. Remove the screw securing the Lever to the Eject Pinch Roll Shaft.
5. Remove the front bearing.
6. Slide the Shaft to the front of the HCS, and remove the Lever, Offset Lever, and bearing from the rear of the Shaft.
7. Slide the Eject Pinch Roll Shaft Assembly to the rear and remove it from the HCS.

Replacement

1. Insert the rear of the Eject Pinch Roll Shaft Assembly into the bearing hole at the rear of the HCS.
2. Insert the front of the Eject Pinch Roll Shaft Assembly into the bearing hole at the front of the HCS.
3. Slide the rear bearing over the rear of the Shaft, and insert the bearing into the hole.
4. Slide the Lever over the rear of the Shaft, and use one screw to secure the Lever to the Shaft.
5. Slide the Offset Lever of the rear of the Shaft, and use an E ring to secure the Lever to the Shaft.
6. Slide the front bearing over the front of the Shaft, and insert the bearing into the hole.
7. Reconnect J832 to the Stack Height Sensor.
8. Reinstall the Eject Chute Assembly (RRP 6.55).

RRP 6.57 Stack Height Sensor (PL 19.3)



SR1554X

SR1554X

RRP 6.57 Stack Height Sensor (PL 19.3)

Removal

1. Remove the Eject Pinch Roll Shaft Assembly (RRP 6.56).
2. Release the latches that are securing the Stack Height Sensor to the Sensor Bracket, and remove the Sensor.

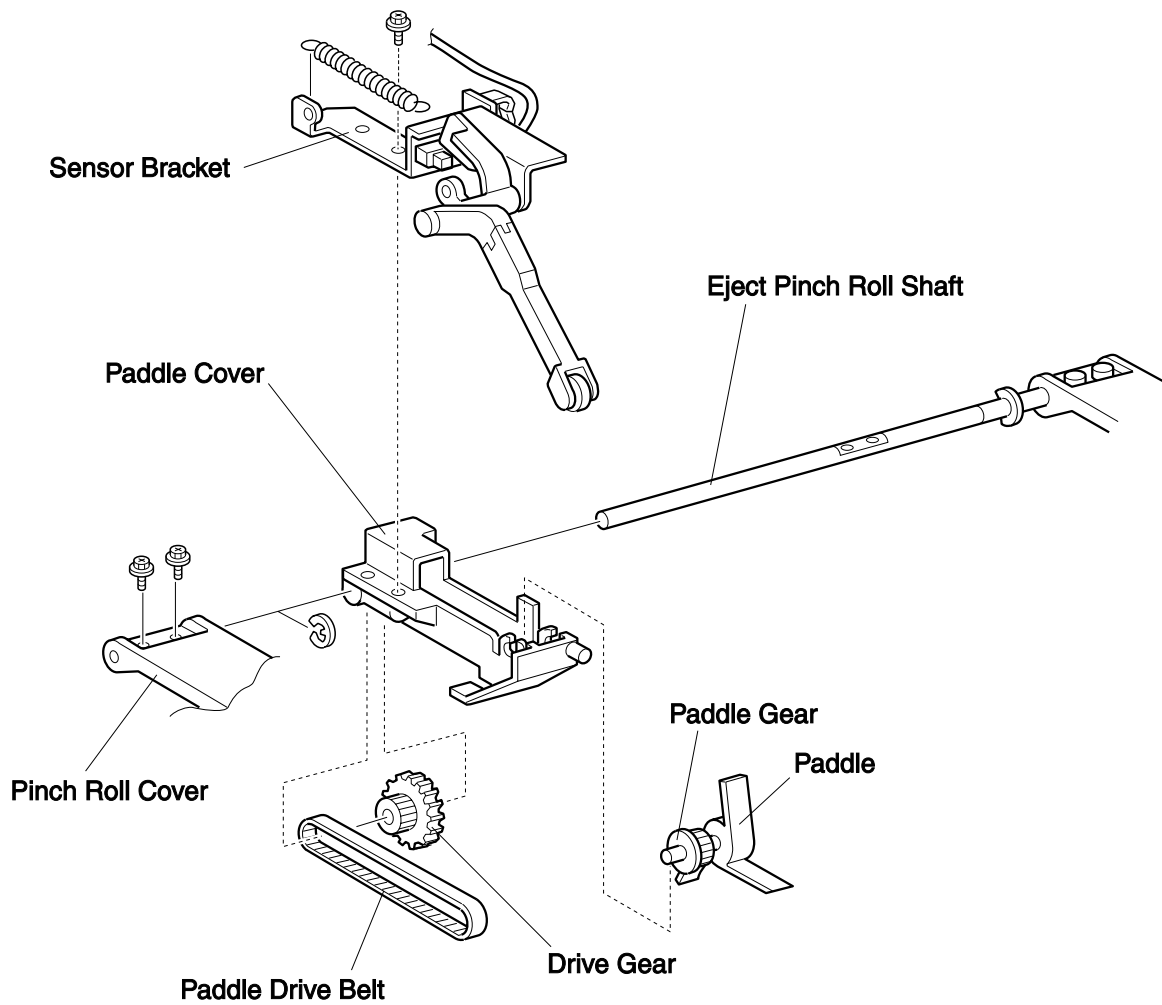
Replacement

1. Position the Stack Height Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the Sensor Bracket.

The Sensor snaps into place.

2. Raise and lower the Stack Height Sensor Actuator to make sure the Actuator arm moves freely between the arms of the Stack Height Sensor.
3. Reinstall the Eject Pinch Roll Shaft Assembly (RRP 6.56).

RRP 6.58 Paddle Drive Belt (PL 19.3)



SER819XA

SER819XA

RRP 6.58 Paddle Drive Belt (PL 19.3)

Removal

1. Remove the Eject Pinch Roll Shaft Assembly (RRP 6.56).
2. Remove the two screws securing the Front Pinch Roll Cover to the Eject Pinch Roll Shaft, and slide the Cover off of the Shaft.
3. Remove the E ring securing the Paddle Cover Assembly to the Eject Pinch Roll Shaft, and slide the Cover Assembly off of the Shaft.
4. Remove the screw securing the Sensor Bracket to the Paddle Cover Assembly, and remove the Bracket.
5. Pry the Paddle out of the Paddle Cover Assembly.
6. Remove the Paddle Drive Belt.

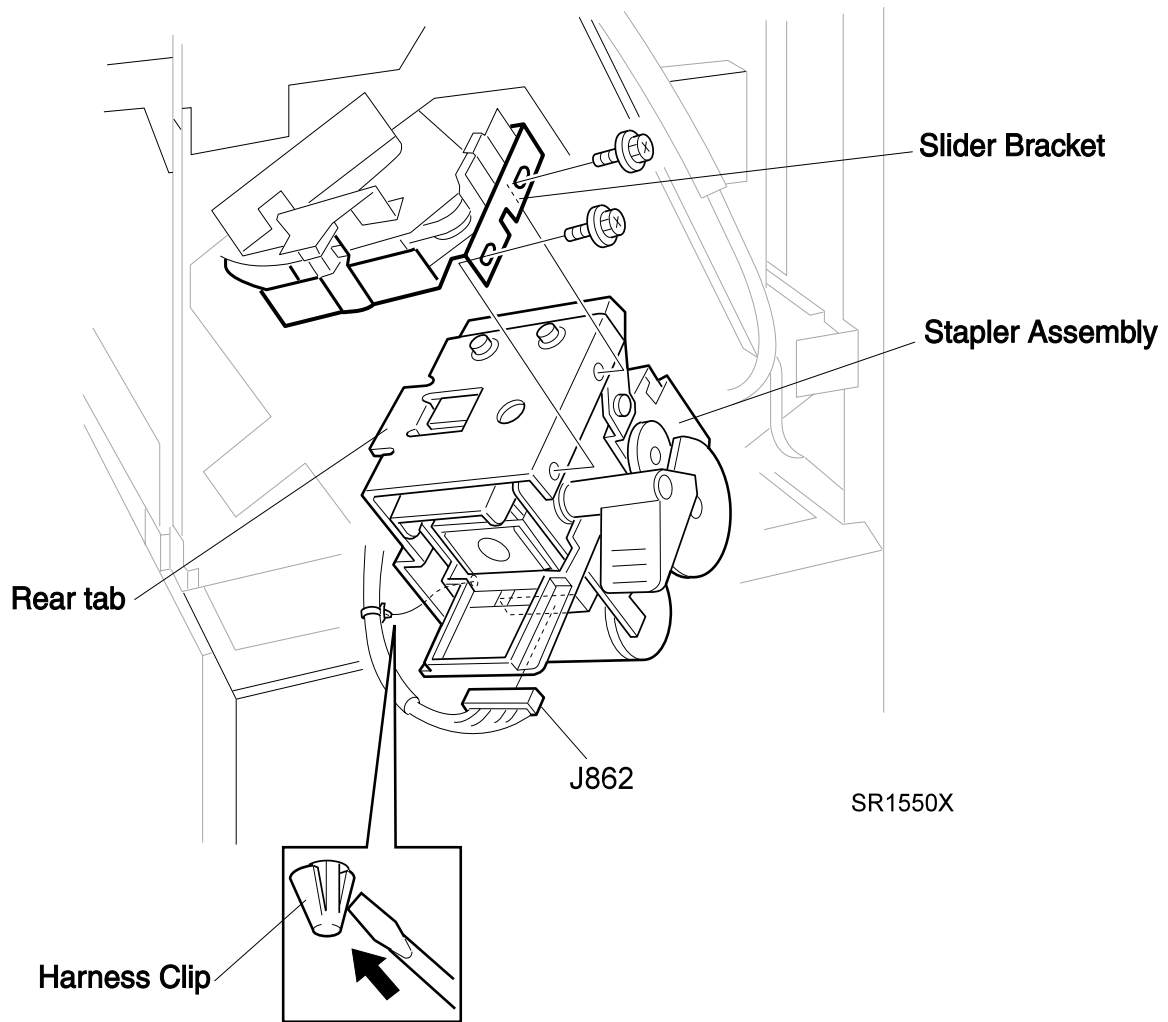
Replacement

1. Slip the Paddle Drive Belt over the Paddle Gear.
2. Press the Paddle onto the Paddle Cover Assembly.
3. Reinstall the Sensor Bracket Assembly onto the Paddle Cover Assembly, and use one screw to secure the Bracket.
4. Reinstall the Drive Gear onto the other end of the Belt, and position the Gear in the Paddle Cover Assembly.
5. Slide the Paddle Cover Assembly onto the Eject Pinch Roll Shaft.

Make sure you align the Drive Gear so the Shaft goes through the hole in the center of the Gear.

6. Use an E ring to secure the Paddle Cover Assembly to the Eject Pinch Roll Shaft.
7. Slide the Front Pinch Roll Cover onto the Eject Pinch Roll Shaft, and use two screws to secure the Cover to the Shaft.
8. Reinstall the Eject Pinch Roll Assembly (RRP 6.56).

RRP 6.59 Stapler Assembly (PL 19.4)



SR1550X

RRP 6.59 Stapler Assembly (PL 19.4)

Removal

1. Remove the L/H Cover (RRP 6.5).
2. Remove the Front Cover Inner Assembly (RRP 6.3).
3. Reach in front the side and push the Stapler Assembly to the front of the HCS.
4. Disconnect J862 from the Stapler Assembly.
5. Release the wire harness clip from the side of the Stapler Assembly.
6. Remove the two screws securing the Stapler Assembly to the Slider Bracket, and remove the Assembly.
7. Release the wire harness from the wire harness clip near the rear of the Stapler Assembly.

Replacement

1. Position the Stapler Assembly near the Slider Bracket.
2. Route the wire harness through the wire clip near the rear of the Stapler Assembly.
3. Reinstall the Stapler Assembly onto the Slider Bracket, making sure you slide the rear tab of the Stapler into the cutout in the Slider Bracket.
4. Use two screws to secure the Assembly to the Rail.
5. Reinstall the wire harness clip to the side of the Stapler Assembly.
6. Reconnect J862 to the Stapler Assembly.
7. Reinstall the Front Cover Inner Assembly (RRP 6.3).
8. Reinstall the L/H Cover (RRP 6.5).

RRP 6.60 Stapler Position Sensors (PL 19.4)

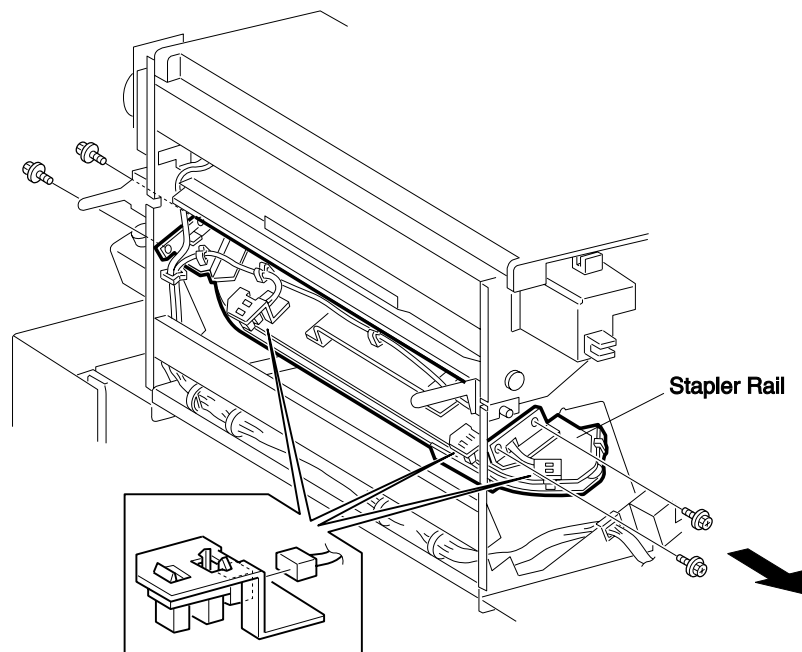


Figure 1

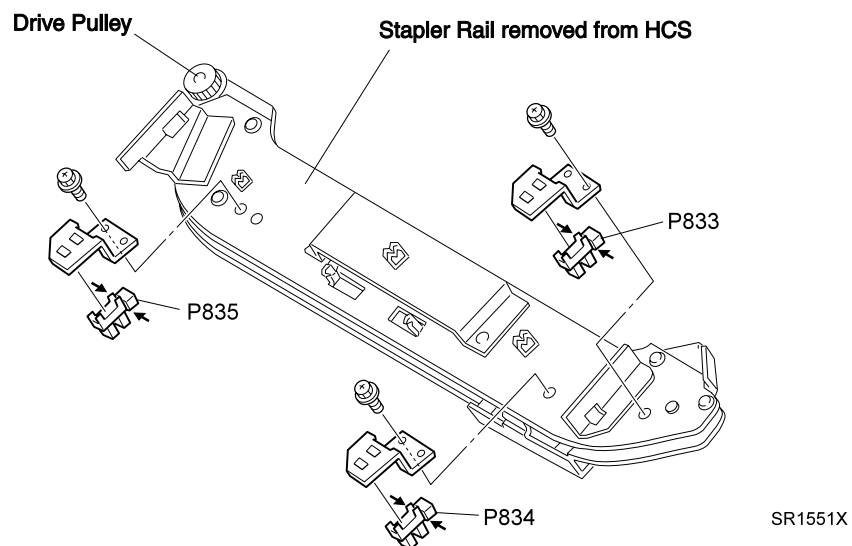


Figure 2

SR1551X

RRP 6.60 Stapler Position Sensors (PL 19.4)

Removal

1. Remove the Stapler Assembly (RRP 6.59).
2. Remove the Rear Cover (RRP 6.8).
3. Rotate the Stapler Transport Motor Drive Belt as you slip the Belt off of the Drive Pulley (see RRP 6.75).
4. Disconnect P833, P834, and P835 from the Stapler Sensors, and free the wire harnesses from the harness clips that are located on the Stapler Rail.
5. Remove the two screws at the rear of the HCS and the two screws at the front of the HCS that secure the Stapler Rail to the HCS frame, and remove the Rail (Figure 1).
6. Place the Stapler Rail on a flat work surface.
7. Remove the three screws that secure the three Sensor Brackets to the Stapler Rail, and remove the Brackets along with the attached Sensors.
8. Press in and release the Sensor latches that are securing the Sensors to the Brackets, and remove the Sensors (Figure 2).

Replacement

1. Position the Sensors as shown in the figure, and insert each one, latches first, into the Sensor cutout in each of the three Sensor Brackets.
2. Reinstall each Sensor Bracket onto the Stapler Rail, and use one screw to secure each Bracket to the Rail.
3. Reinstall the Stapler Rail into the HCS frame.
4. Use four screws to secure the Rail to the frame.
5. Reconnect P833 to the Front Corner Sensor, P834 to the Front Edge Sensor, and P835 to the Rear Edge Sensor.
6. Route the wire harness through the harness clips that are located on the Stapler Rail.
7. Rotate the Stapler Transport Motor Drive Belt as you slip the Belt onto the Drive Pulley (see RRP 6.75).
8. Reinstall the Rear Cover (RRP 6.8).
9. Reinstall the Stapler Assembly (RRP 6.59).

RRP 6.61 Stapler Rail Belt (PL 19.4)

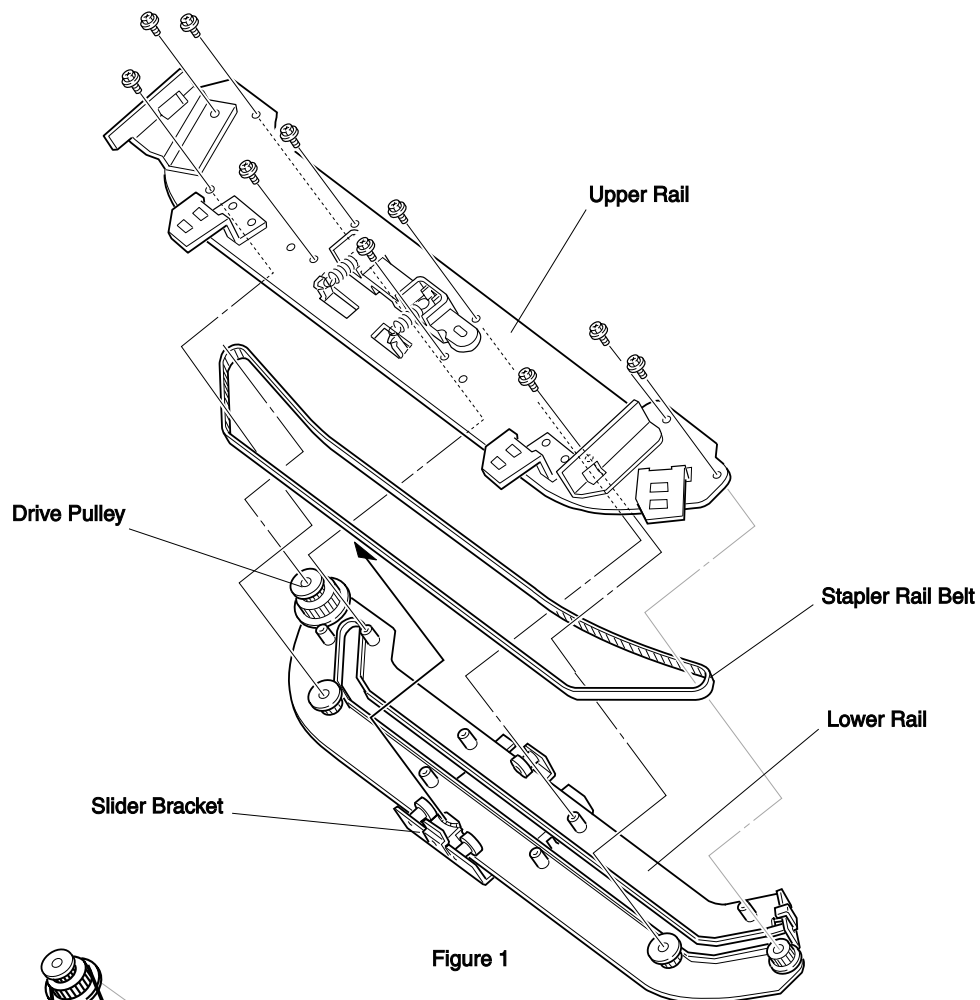


Figure 1

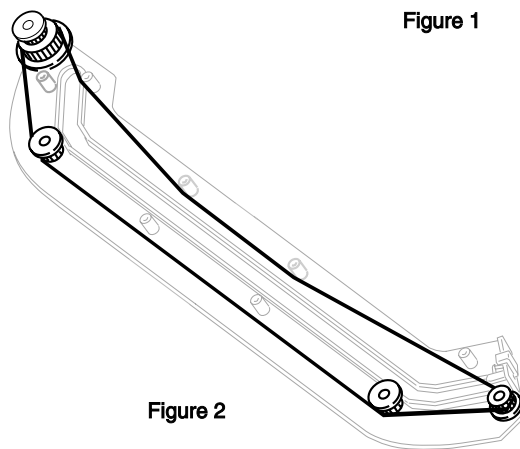


Figure 2

SER820XA

SER820XA

RRP 6.61 Stapler Rail Belt (PL 19.4)

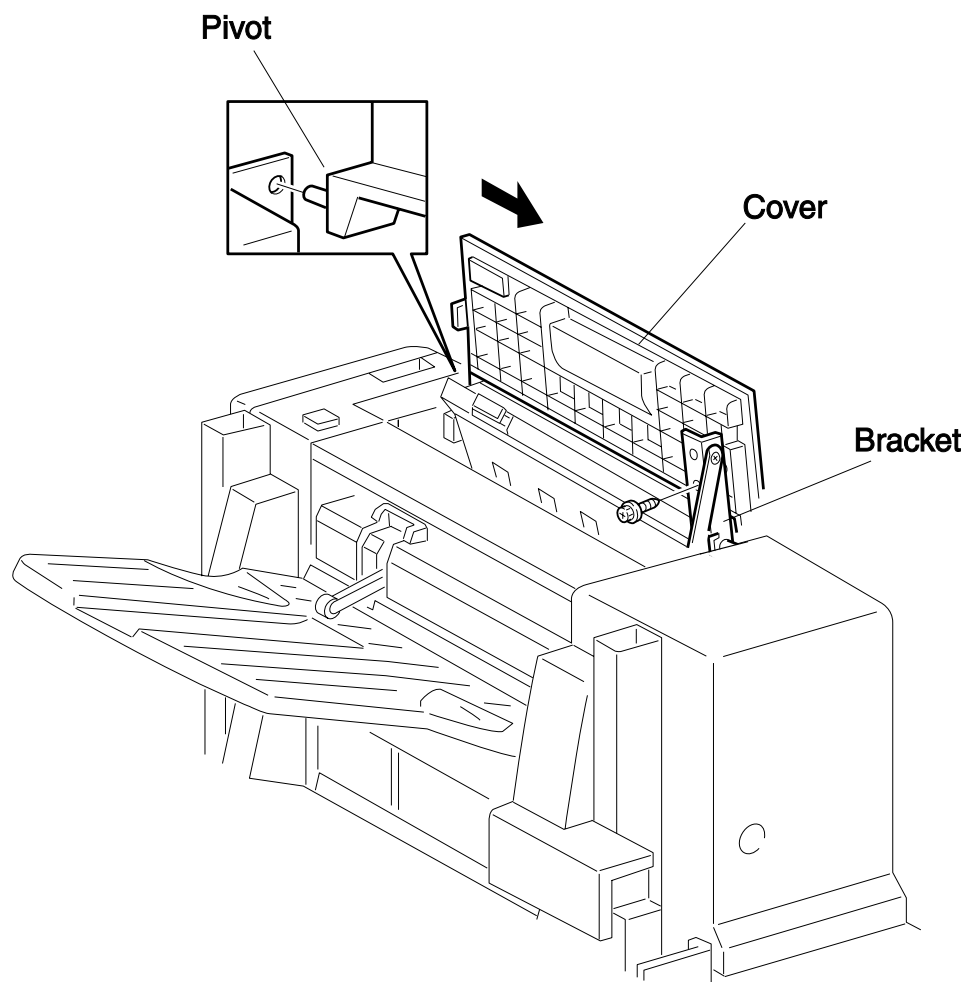
Removal

1. Remove the Stapler Assembly (RRP 6.59).
2. Remove the Rear Cover (RRP 6.8).
3. Rotate the Transport Motor Drive Belt as you slip the Belt off of the Drive Pulley (see RRP 6.75).
4. Disconnect P833, P834, and P835 from the Stapler Sensors, and free the wire harnesses from the harness clips that are located on the Stapler Rail.
5. Remove the two screws at the rear of the HCS and the two screws at the front of the HCS that secure the Stapler Rail to the HCS frame, and remove the Rail.
6. Place the Stapler Rail on a flat work surface.
7. Remove the two screws securing the Tension Cover to the Rail, and remove the Cover.
8. Remove the ten screws securing the Upper Rail to the Lower Rail, and remove the Upper Rail (Figure 1).
9. Remove the screw securing the Belt Clamp to the Slider Bracket.
10. Remove the Belt from the Lower Rail.
11. Remove the Belt from the Belt Clamp.

Replacement

1. Reinstall the Belt Clamp onto the Belt by prying open the Clamp and sliding the Belt into the open Clamp.
2. Reinstall the Belt, following the path shown in figure 2.
3. Reinstall the Belt Clamp onto the Slider Bracket, and use one screw to secure the Clamp.
4. Push out on the Tension Bracket so the Springs are stretched, and reinstall the Upper Rail onto the Lower Rail.
5. Reach under the Lower Rail and position the Belt so the back (non-ribbed side) of the Belt rides against the Tension Roll.
6. Release the Tension Bracket.
7. Use ten screws to secure the Upper Rail to the Lower Rail.
8. Reinstall the Tension Cover over the Tension Bracket, and use two screws to secure the Cover to the Upper Rail.
9. Rotate the Drive Pulley to make sure the Belt tracks correctly and the Slider Bracket moves smoothly along the Rail.
10. Reinstall the Stapler Rail into the HCS frame.
11. Use four screws to secure the Rail to the frame.
12. Reconnect P833 to the front Sensor, P834 to the middle Sensor, and P835 to the rear Sensor.
13. Route the wire harness through the harness clips that are located on the Stapler Rail.
14. Rotate the Stapler Transport Motor Drive Belt as you slip the Belt onto the Drive Pulley (see RRP 6.75).
15. Reinstall the Rear Cover (RRP 6.8).
16. Reinstall the Stapler Assembly (RRP 6.59).

RRP 6.62 Top Cover Assembly (PL 19.5)



SER787XA

SER787XA

RRP 6.62 Top Cover Assembly (PL 19.5)

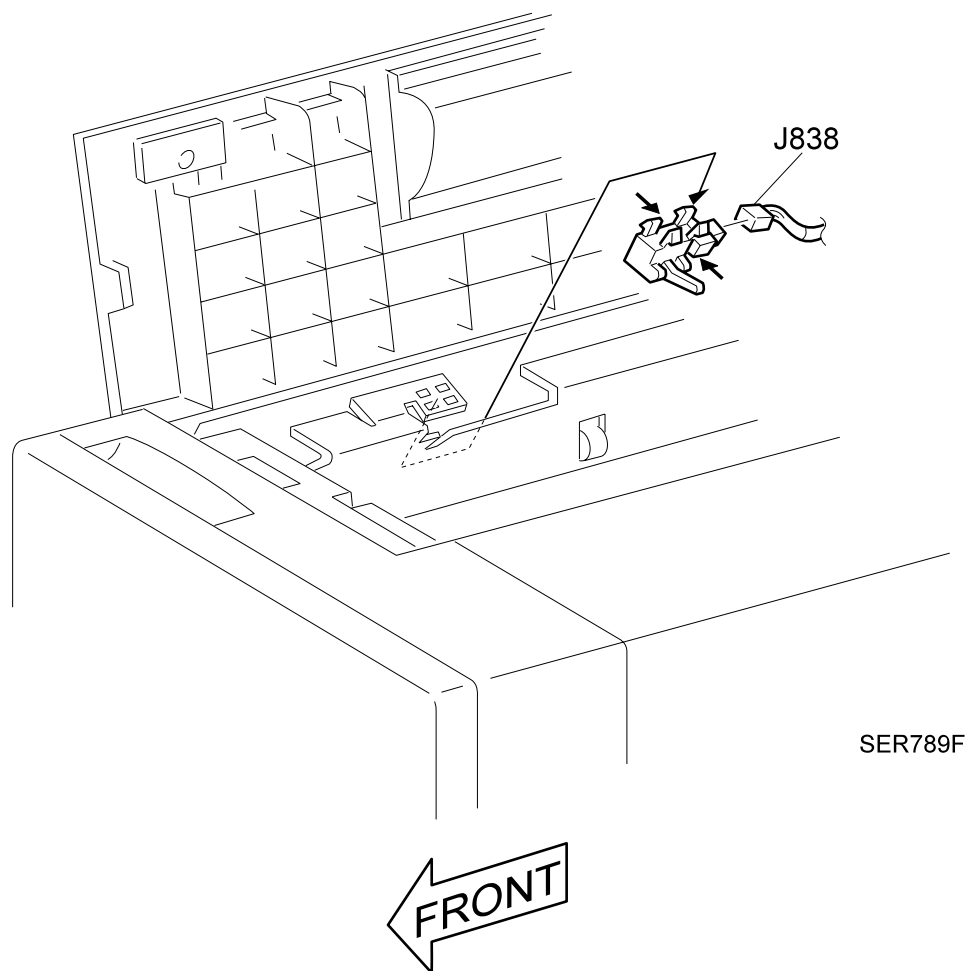
Removal

1. Open the Top Cover.
2. Remove the screw securing the Cover Bracket to the Cover.
3. Slide the Cover to the side so the pivot slides out of the pivot hole, and pull the Top Cover away from the HCS.

Replacement

1. Insert the Top Cover pivot into the pivot hole in the HCS.
2. Pull the Bracket up into position against the Top Cover, making sure you align the positioning hole in the Bracket with the positioning tab on the Cover.
3. Use one screw to secure the Bracket to the Top Cover.
4. Close the Top Cover.

RRP 6.63 Compiler Tray Exit Sensor (PL 19.5)



SER789F

RRP 6.63 Compiler Tray Exit Sensor (PL 19.5)

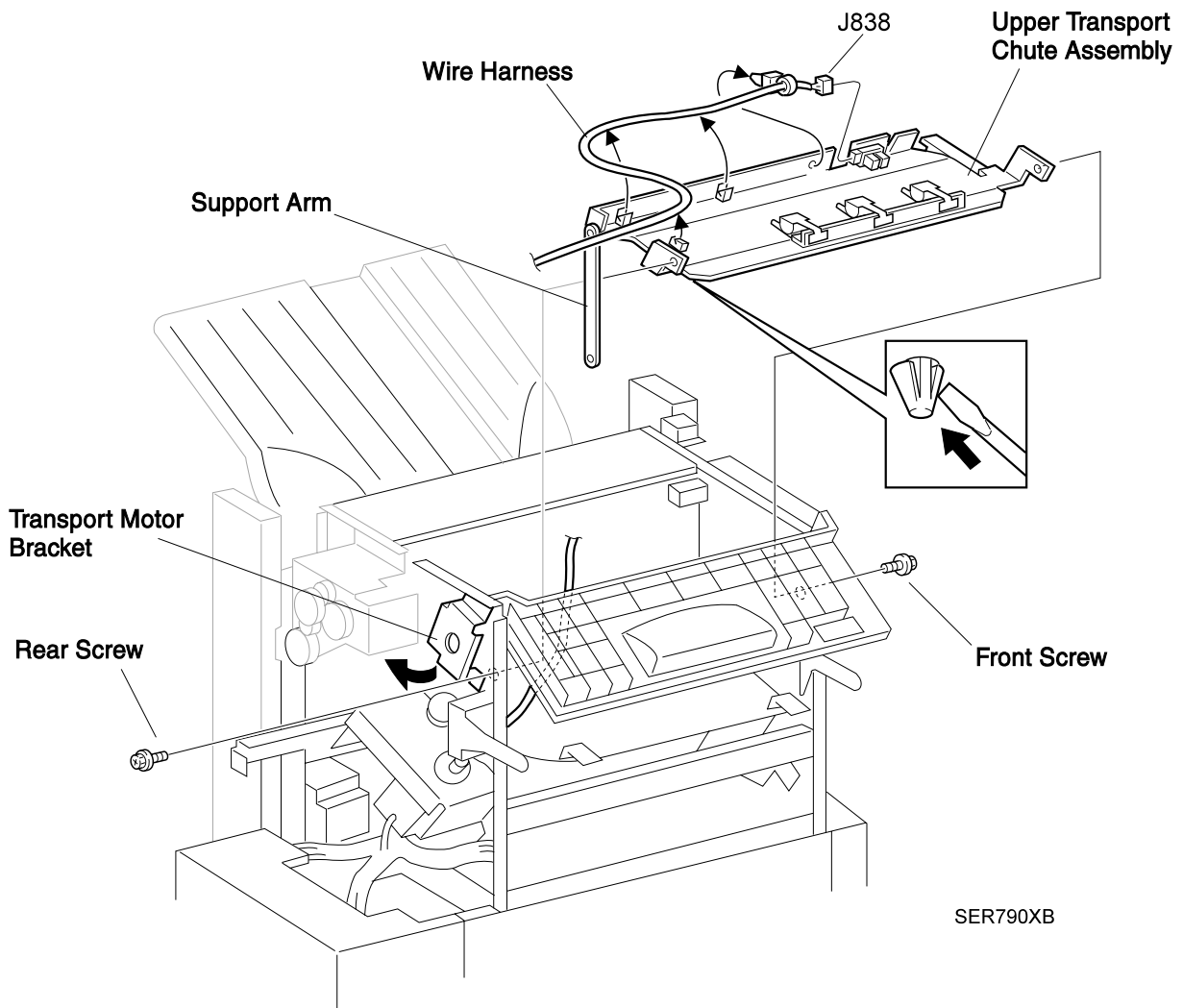
Removal

1. Open the Top Cover.
2. Release the latches on the Compiler Tray Exit Sensor, and remove the Sensor from the Transport Chute.
3. Disconnect J838 from the Compiler Tray Exit Sensor.

Replacement

1. Open the Top Cover just enough so you can reach behind the Transport Chute.
2. Reconnect J838 to the Compiler Tray Exit Sensor.
3. Position the Compiler Tray Exit Sensor behind the Transport Chute, as shown in the figure.
4. Make sure the Sensor Actuator fits through the actuator cutout in the Chute.
5. Press the latches on the back of the Sensor into the cutouts in the Chute. The Sensor snaps into place.
6. Close the Top Cover.

RRP 6.64 Upper Transport Chute Assembly (PL 19.5)



SER790XB

RRP 6.64 Upper Transport Chute Assembly (PL 19.5)

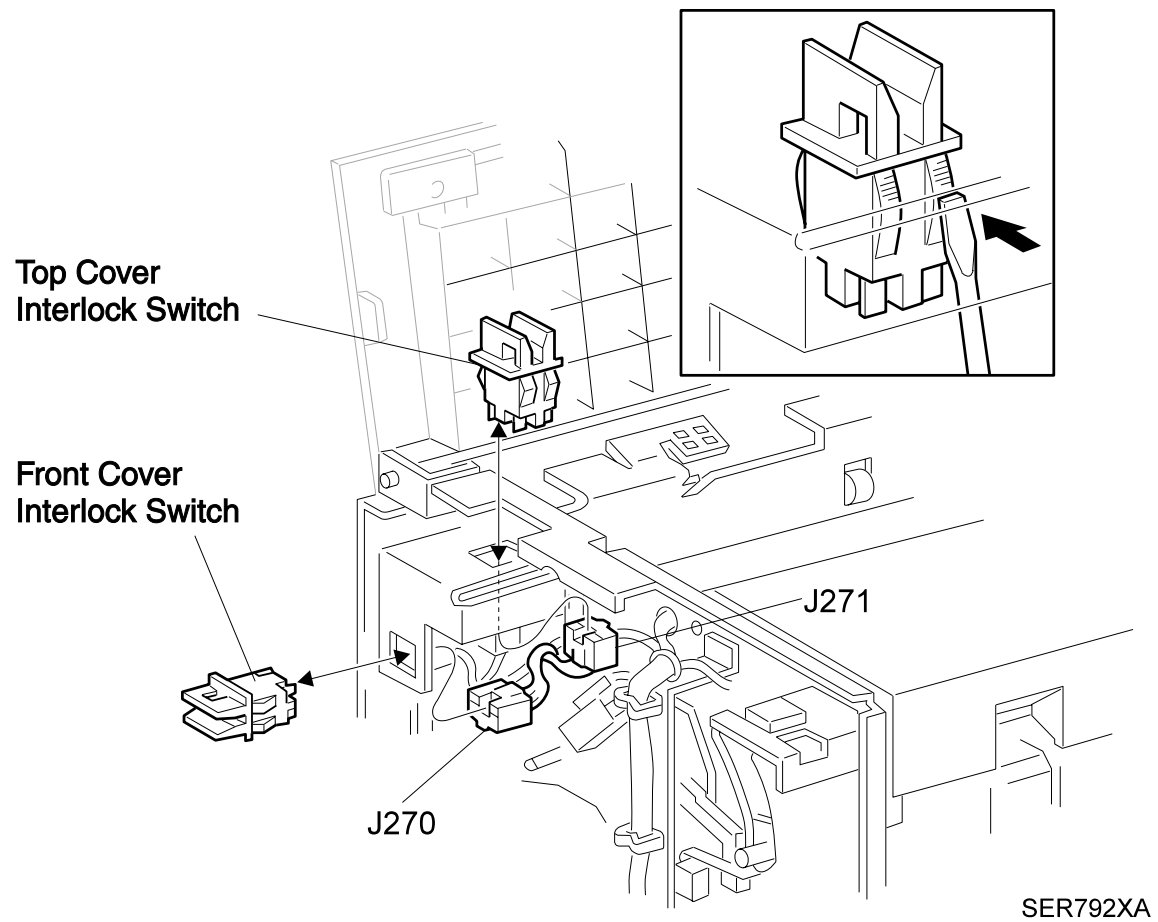
Removal

1. Remove the Transport Motor Bracket (use steps 1 through 5 in RRP 6.76).
2. Disconnect J838 from the Compiler Tray Exit Sensor, and free the wire harness from the clips that are located on the Upper Transport Chute Assembly.
3. Remove the screw that secures the Upper Transport Chute support arm to the Top Cover Assembly.
4. Remove the screw securing the front of the Upper Transport Chute to the front HCS frame.
5. Remove the screw securing the rear of the Upper Transport Chute to the rear HCS frame.
6. Remove the Upper Transport Chute Assembly from the HCS.

Replacement

1. Position the Upper Transport Chute Assembly as shown in the figure, and reinstall the Assembly into the HCS.
2. Use one screw to secure the rear of the Upper Transport Chute to the rear HCS frame.
3. Use one screw to secure the front of the Upper Transport Chute to the front HCS frame.
4. Position the support arm against the Top Cover Assembly, and use one screw to secure the support arm.
5. Reconnect J838 to the Compiler Tray Exit Sensor.
6. Route the wire harness through the clips that are located on the Upper Transport Chute Assembly.
7. Reinstall the Transport Motor Bracket (RRP 6.76).

RRP 6.65 Top & Front Cover Interlock Switches (PL 20.1)



SER792XA

RRP 6.65 Top & Front Cover Interlock Switches (PL 20.1)

Removal

1. Remove the Front Cover Inner Assembly (RRP 6.3).
2. Open the Top Cover.
3. Disconnect J271 from the Top Cover Interlock Switch.
4. Use the flat blade of a screwdriver to pry up the Top Cover Interlock Switch and remove it from the HCS frame.
5. Disconnect J270 from the Front Cover Interlock Switch.
6. Use the flat blade of a screwdriver to pry up the Front Cover Interlock Switch and remove it from the HCS frame.

Replacement

1. Insert the Front Cover Interlock Switch into the cutout in the HCS frame.
2. Push in on the Switch until it snaps into place.
3. Reconnect J270 to the Front Cover Interlock Switch.
4. Insert the Top Cover Interlock Switch into the cutout in the HCS frame.
5. Push in on the Switch until it snaps into place.
6. Reconnect J271 to the Top Cover Interlock Switch.
7. Reinstall the Front Cover Inner Assembly (RRP 6.3).

HCS-212



3260/4032 Print System - High Capacity Stacker Technical Manual

RRP 6.66 Compiler Cover & Safety Interlock Switches (PL 20.1)

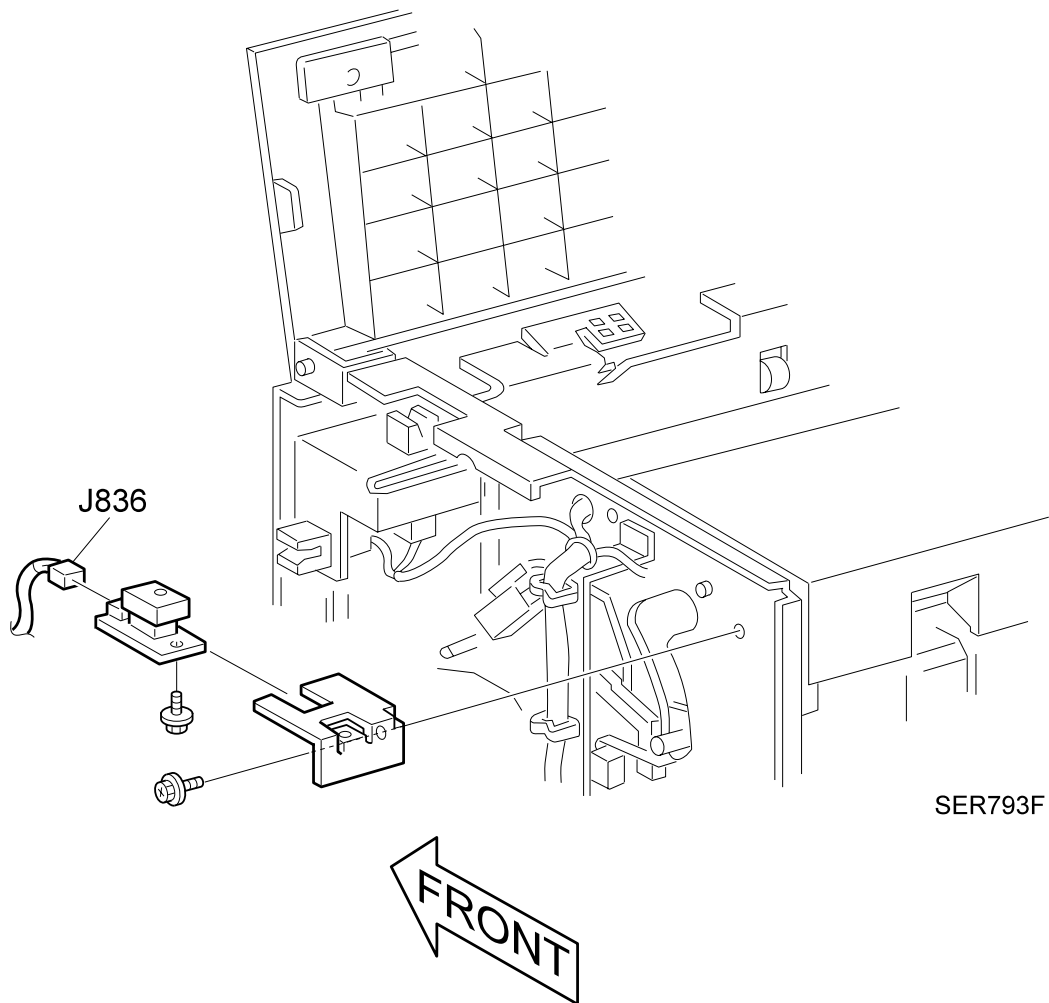
Removal

1. Remove the Front Cover Inner Assembly (RRP 6.3).
2. Remove the Unload While Run Switch (RRP 6.67).
3. If necessary, remove the two screws securing the Harness Holder to the HCS frame, and push the Holder out of the way.
4. Disconnect J855 from the Compiler Cover Safety Switch.
5. Remove the two screws securing the Safety Switch to the HCS frame, and remove the Switch.
6. Disconnect J272A and J272B from the two Compiler Cover Interlock Switches.
7. Remove the two screws securing the Switches to the HCS frame, and remove the Switches.

Replacement

1. Position the two Compiler Cover Interlock Switches as shown in the figure.
2. Reinstall the two Compiler Cover Interlock Switches to the HCS frame, making sure the Switch Actuators are under the Interlock Actuator.
3. Reconnect J272A to the Compiler Cover Interlock Switch that is against the frame.
4. Reconnect J272B to the other Compiler Cover Interlock Switch.
5. Reinstall the Compiler Cover Safety Switch to the HCS frame, making sure the Switch Actuator is under the leg of the Eject Chute Assembly.
6. Use two screw to secure the Safety Switch to the HCS frame.
7. Reconnect J855 to the Safety Switch.
8. Reinstall the Harness Holder, if removed, and use two screws to secure it to the HCS frame.
9. Reinstall the Unload While Run Switch (RRP 6.67).
10. Reinstall the Front Cover Inner Assembly (RRP 6.3).

RRP 6.67 Unload While Run Switch (PL 20.1)



SER793F

RRP 6.67 Unload While Run Switch (PL 20.1)

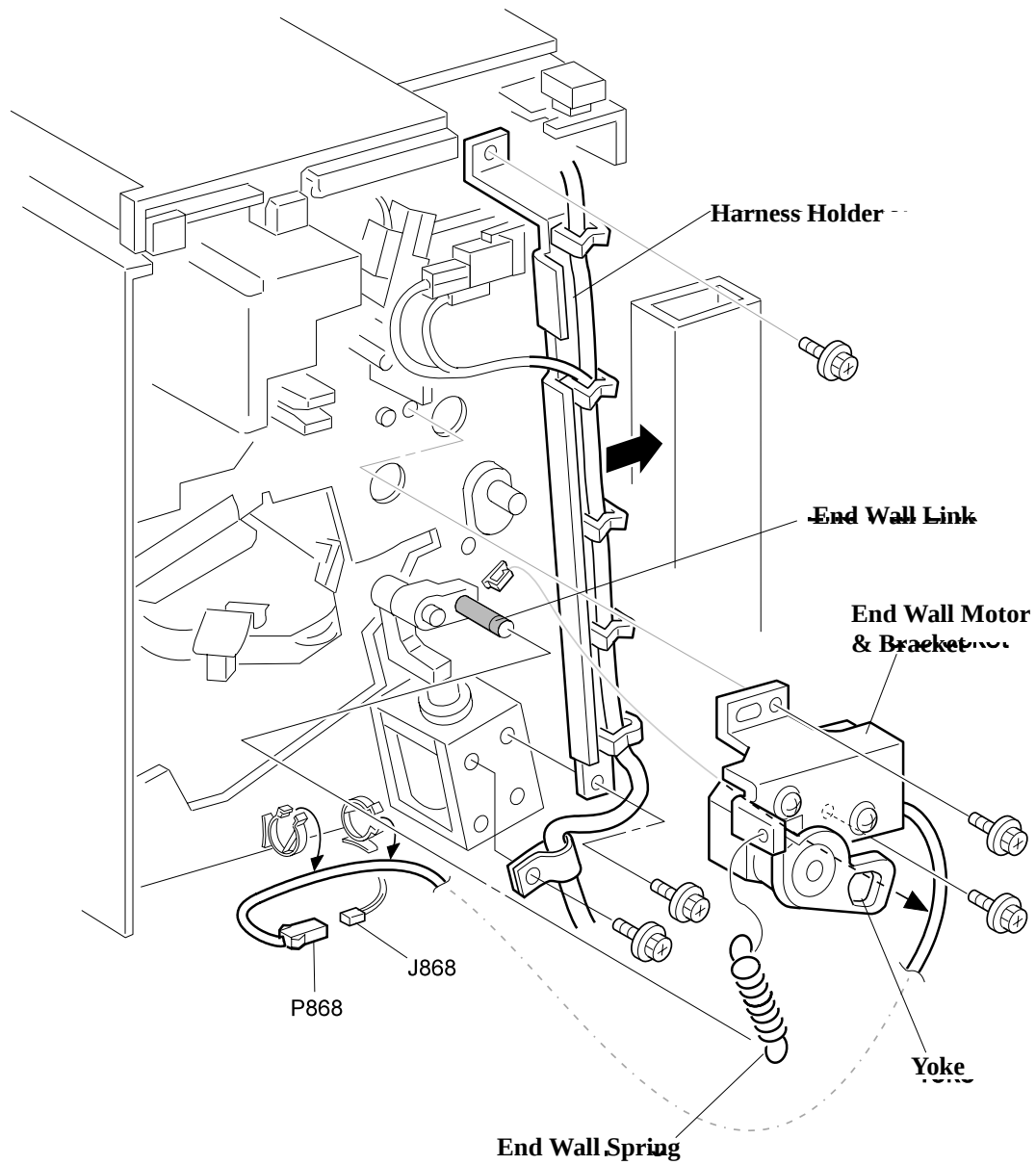
Removal

1. Remove the Front Cover Inner Assembly (RRP 6.3).
2. Remove the screw securing the Switch Bracket to the HCS frame, and remove the Bracket.
3. Disconnect J836 from the Switch.
4. Remove the screw securing the Switch to the Bracket, and remove the Switch.

Replacement

1. Reinstall the Unload While Run Switch onto the Switch Bracket.
2. Use one screw to secure the Switch to the Bracket.
3. Reconnect J836 to the Switch.
4. Reinstall the Bracket to the HCS frame, and use one screw to secure it to the frame.
5. Reinstall the Front Cover Inner Assembly (RRP 6.3).

RRP 6.68 End Wall Motor (PL 20.1)



SER795XB

RRP 6.68 End Wall Motor (PL 20.1)

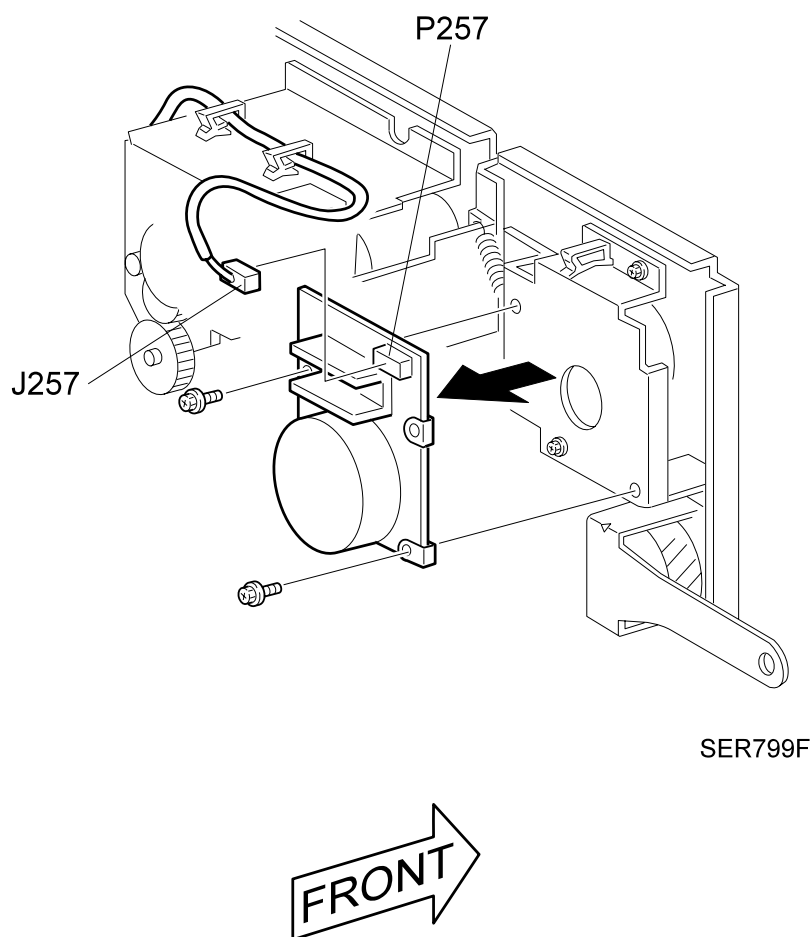
Removal

1. Remove the Front Cover Inner Assembly (RRP 6.3).
2. Remove the Unload While Run Switch (RRP 6.67).
3. Remove the two screws securing the Harness Holder and push the Holder out of the way.
4. Remove the screw securing the Harness Clip to the End Wall Solenoid.
5. Remove the End Wall Spring.
6. Remove the two screws securing the End Wall Motor Bracket to the HCS frame, and remove the Bracket along with the Attached End Wall Motor.
7. Release the End Wall Motor wire harness from the harness clips.
8. Disconnect P868.
9. Remove the two screws securing the End Wall Motor to the Bracket, and remove the Motor.

Replacement

1. Reinstall the End Wall Motor onto the Motor Bracket.
2. Use two long screws to secure the Motor to the Bracket.
3. Reinstall the End Wall Motor Bracket onto the HCS frame, making sure the End Wall Link is captured inside the End Wall Motor yoke.
4. Use two screws to secure the End Wall Motor Bracket to the HCS frame.
5. Reinstall the End Wall Spring, with one end of the Spring attached to the End Wall Motor Bracket and the other end attached to the end of the End Wall Link.
6. Route the End Wall Motor wire harness through the harness clips.
7. Reconnect P868.
8. Reinstall the Harness Holder and use two screws to secure the Holder to the HCS frame.
9. Reinstall the Harness Clip to the End Wall Solenoid, and use one screw to secure the Clip.
10. Reinstall the Unload While Run Switch (RRP 6.67).
11. Reinstall the Front Cover Inner Assembly (RRP 6.3).

RRP 6.69 Transport Motor (PL 20.2)



SER799F

RRP 6.69 Transport Motor (PL 20.2)

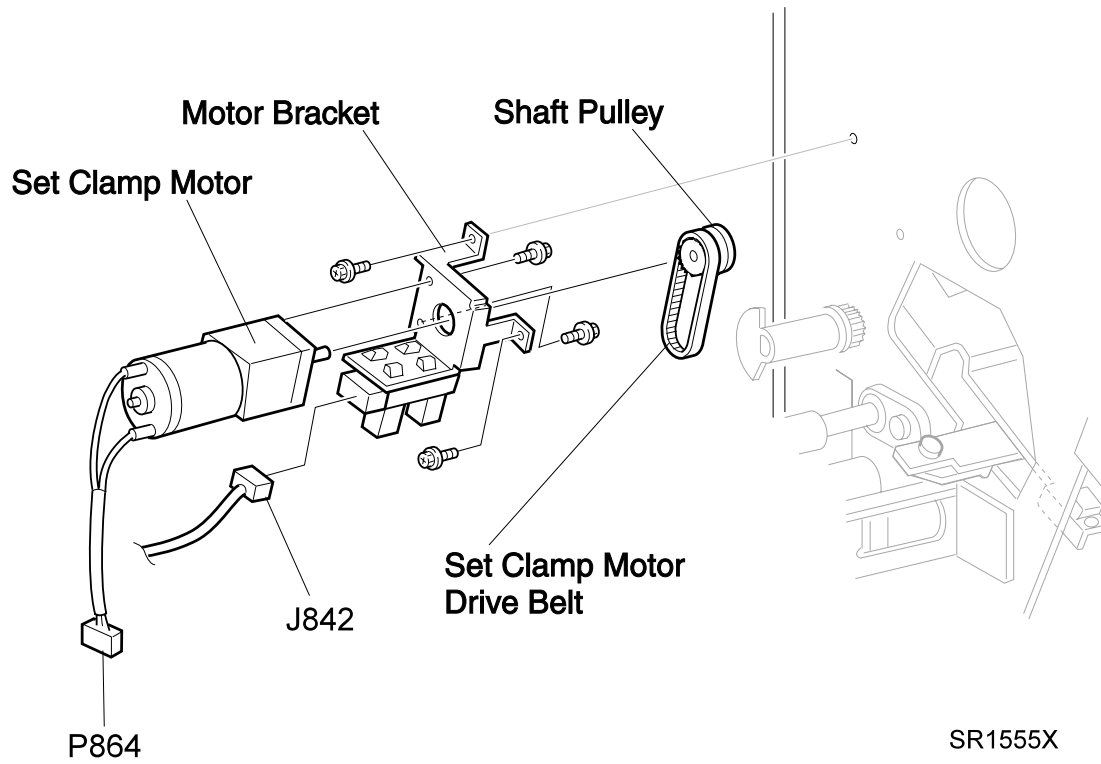
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Rear Cover (RRP 6.8).
3. Disconnect J257 from the Transport Motor.
4. Remove the two screws securing the Transport Motor to the Motor Bracket, and remove the Motor.

Replacement

1. Reinstall the Transport Motor onto the Motor Bracket.
2. Use two screws to secure the Motor to the Bracket.
3. Reconnect J257 to the Transport Motor.
4. Reinstall the Rear Cover (RRP 6.8).
5. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.70 Set Clamp Motor (PL 20.2)



SR1555X

RRP 6.70 Set Clamp Motor (PL 20.2)

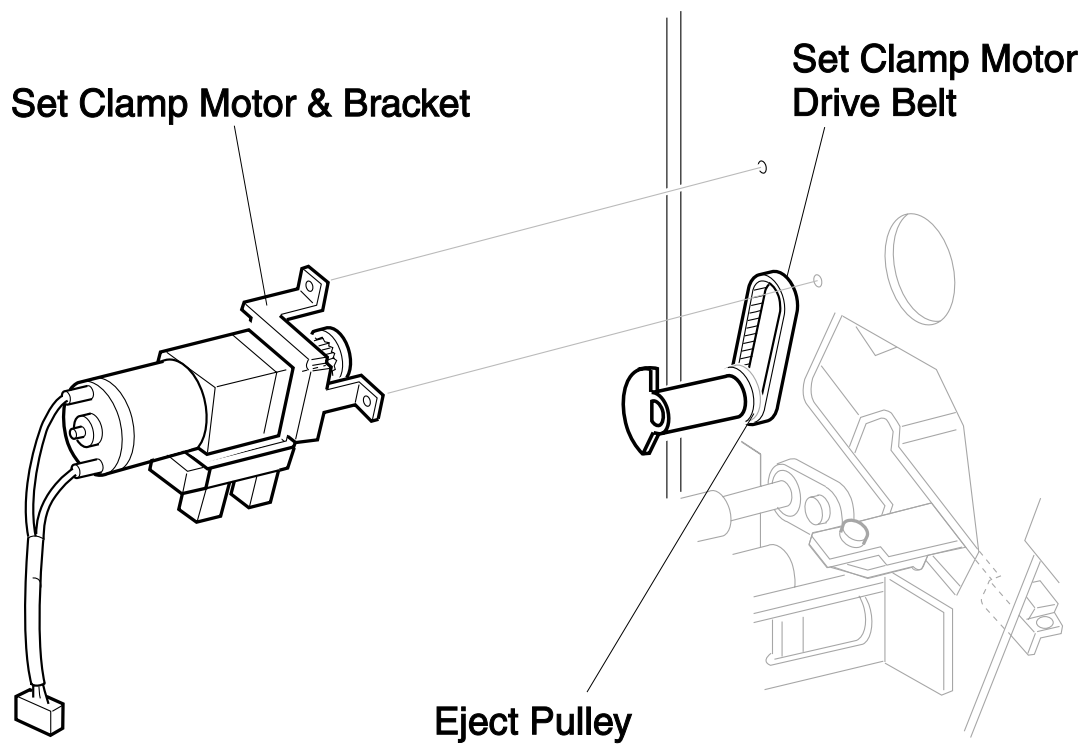
Removal

1. Remove the Eject Bracket Assembly (RRP 6.77).
2. Remove the Finisher PWB Cover (RRP 6.11).
3. Disconnect P864 and J842.
4. Remove the two screws securing the Motor Bracket to the HCS frame, and pull the Bracket away from the HCS frame.
5. Free the Set Clamp Drive Belt from the Motor Pulley, and remove the Motor Bracket.
6. Remove the E ring securing the Shaft Pulley to the Motor Shaft, and remove the Pulley.
7. Remove the two screws securing the Set Clamp Motor to the Motor Bracket, and remove the Motor.

Replacement

1. Reinstall the Set Clamp Motor onto the Motor Bracket, and use two screws to secure the Motor.
2. Slide the Shaft Pulley, with the lip facing away from the Motor, onto the Motor Shaft.
3. Use an E ring to secure the Pulley to the Shaft.
4. Reinstall the Motor Bracket onto the HCS frame, by first slipping the Set Clamp Drive Belt over the Shaft Pulley.
5. Use two screws to secure the Motor Bracket to the HCS frame.
6. Reconnect P864 and J842.
7. Reinstall the Finisher PWB Cover (RRP 6.11).
8. Reinstall the Eject Bracket Assembly (RRP 6.77).

RRP 6.71 Set Clamp Motor Drive Belt (PL 20.2)



SR1556X

SR1556X

RRP 6.71 Set Clamp Motor Drive Belt (PL 20.2)

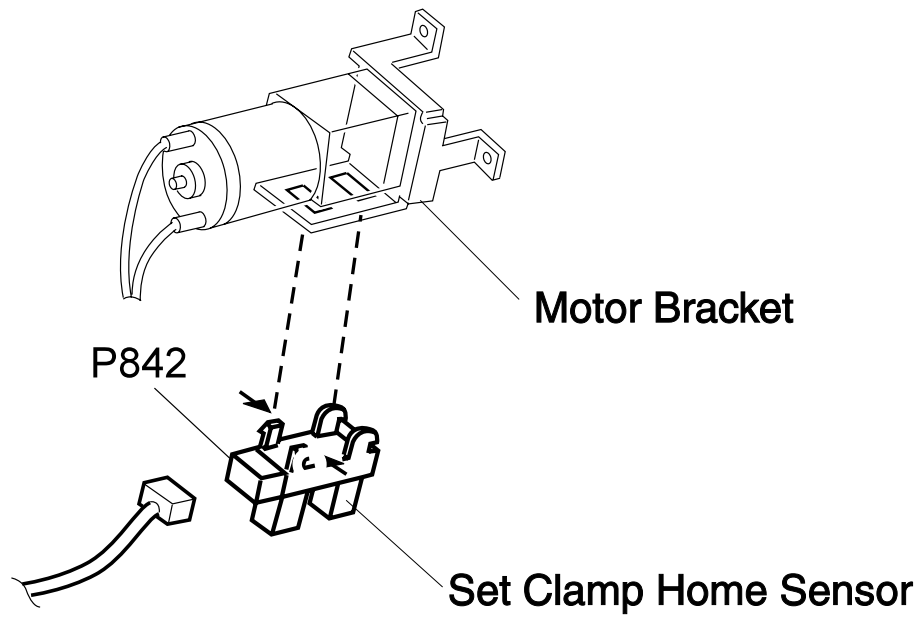
Removal

1. Remove the Set Clamp Motor (RRP 6.70).
2. Remove the Set Clamp Motor Drive Belt from the Eject Pulley.

Replacement

1. Slip the Set Clamp Motor Drive Belt over the Eject Pulley.
2. Reinstall the Set Clamp Motor (RRP 6.70).

RRP 6.72 Set Clamp Home Sensor (PL 20.2)



SR1557X

SR1557X

RRP 6.72 Set Clamp Home Sensor (PL 20.2)

Removal

1. Remove the Set Clamp Motor (RRP 6.70).

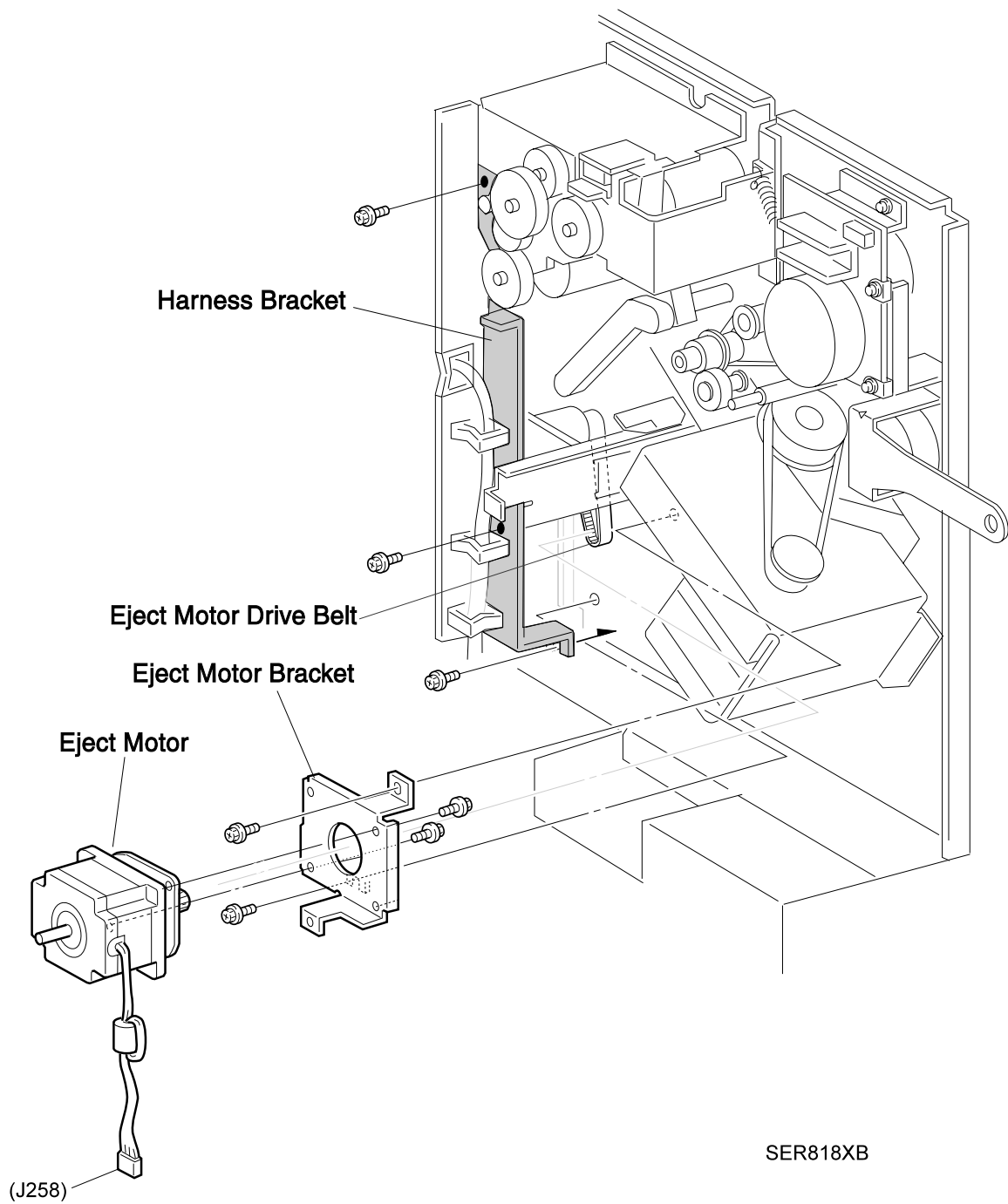
For this procedure, do not remove the Motor from the Bracket.

2. Press in and release the Sensor latches that secure the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Set Clamp Home Sensor as shown in the figure, and insert it latches first, into the cutout in the Motor Bracket.
2. Reinstall the Set Clamp Motor (RRP 6.70).

RRP 6.73 Eject Motor (PL 20.2)



SER818XB

RRP 6.73 Eject Motor (PL 20.2)

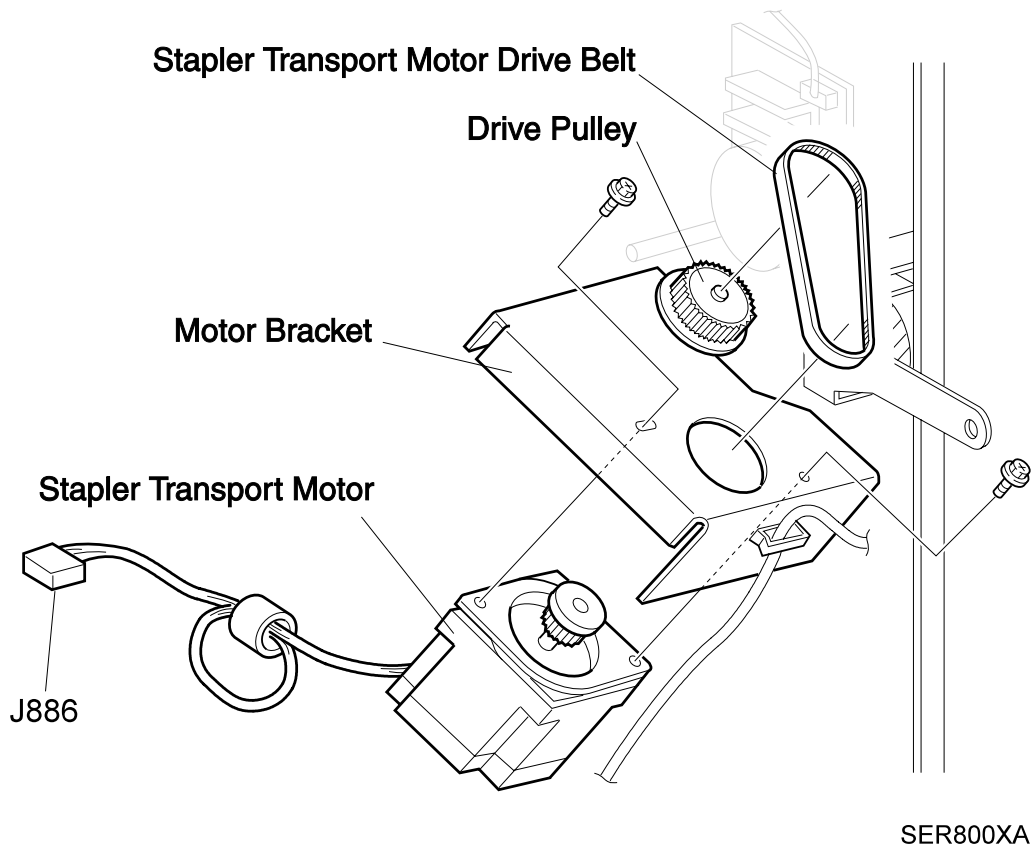
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Rear Cover (RRP 6.8).
3. Free the wire harnesses that run the length of the Harness Bracket.
4. Remove the three screws securing the Harness Bracket to the HCS frame, and remove the Bracket.
5. Disconnect J258.
6. Remove the three screws securing the Eject Motor Bracket to the HCS frame.
7. Slip the Motor shaft pulley free of the Eject Motor Drive Belt, and remove the Bracket and Motor.
8. Remove the two screws securing the Eject Motor to the Motor Bracket, and remove the Motor.

Replacement

1. Position the Eject Motor against the Eject Motor Bracket, as shown in the figure.
2. Use two screws to secure the Motor to the Bracket.
3. Reinstall the Motor Bracket onto the HCS frame, making sure you loop the free end of the Eject Motor Drive Belt over the Motor shaft pulley.
4. Use three screws to secure the Eject Motor Bracket to the HCS frame, but do not tighten the screws at this time.
5. Push down slightly on the Eject Motor, to tension the Drive Belt, and hold the Motor down while you tighten the three screws securing the Bracket to the frame.
6. Reconnect J258.
7. Reinstall the Harness Bracket to the HCS frame, and use three screws to secure it to the frame.
8. Route the wire harnesses through the clips that run the length of the Harness Bracket.
9. Reinstall the Rear Cover (RRP 6.8).
10. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.74 Stapler Transport Motor (PL 20.2)



SER800XA

RRP 6.74 Stapler Transport Motor (PL 20.2)

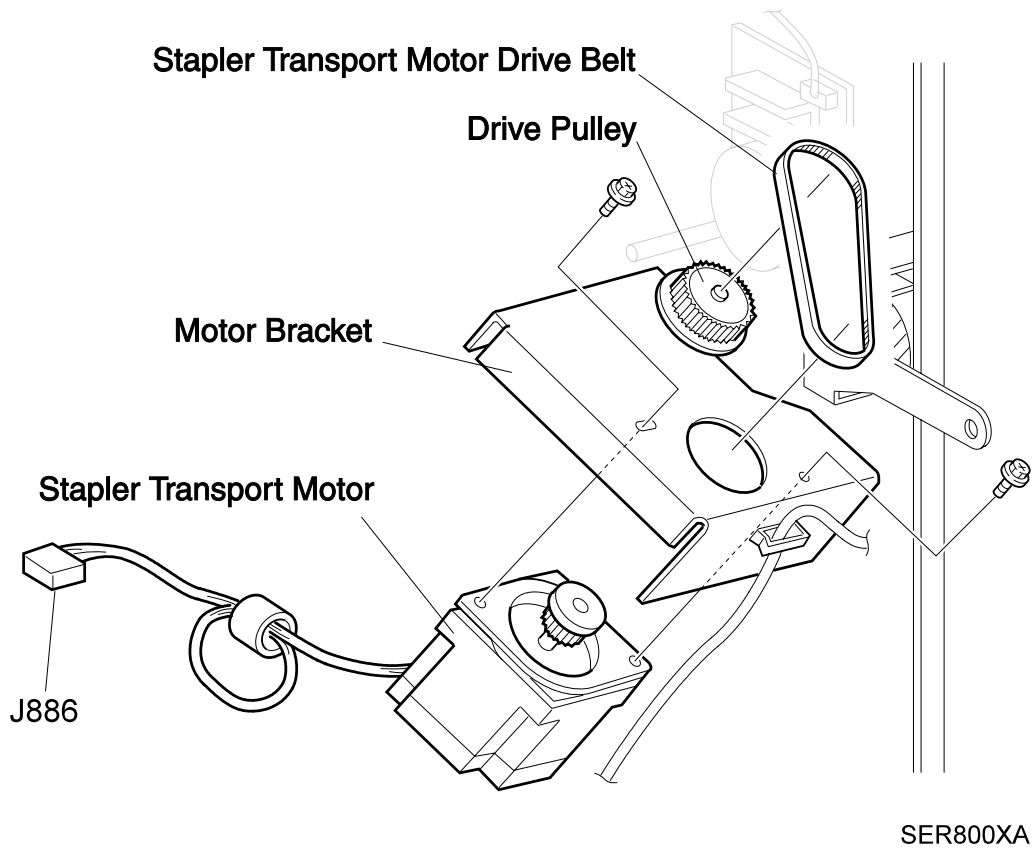
Removal

1. Disconnect the AC cable and the HCS Interface cable from the base printer.
2. Remove the Rear Cover (RRP 6.8).
3. Disconnect J886.
4. Remove the two screws securing the Stapler Transport Motor to the Motor Bracket, and remove the Motor.

Replacement

1. Insert the Motor shaft through the cutout in the Motor Bracket.
2. Slip the Stapler Motor Drive Belt over the shaft gear.
3. Align the Motor so the two screw holes in the Motor line up with the two screw holes in the Motor Bracket.
4. Use two screws to secure the Motor to the Bracket.
5. Reconnect J886.
6. Reinstall the Rear Cover (RRP 6.8).
7. Reconnect the AC cable and the HCS Interface cable to the base printer.

RRP 6.75 Stapler Transport Motor Drive Belt (PL 20.2)



SER800XA

RRP 6.75 Stapler Transport Motor Drive Belt (PL 20.2)

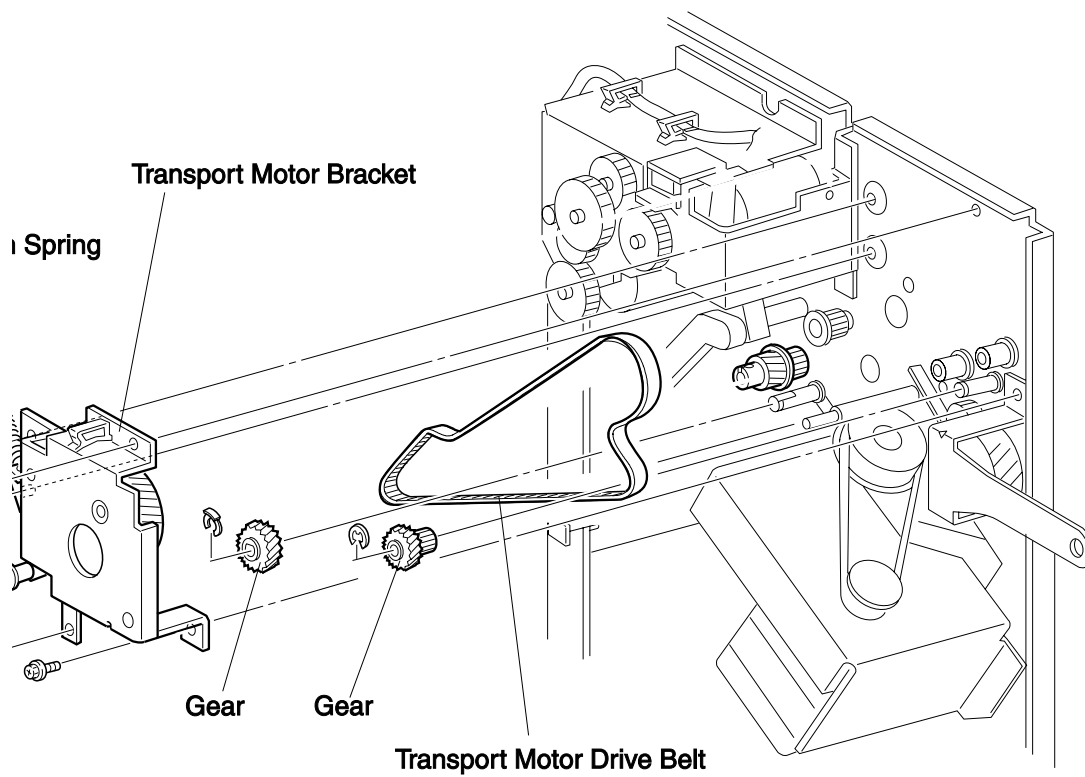
Removal

1. Remove the Stapler Transport Motor (RRP 6.74).
2. Slip the Drive Belt over the Drive Pulley, and remove the Belt.

Replacement

1. Position the Stapler Transport Motor Drive Belt so the ribs are on the inside of the Belt loop.
2. Slip the Belt over the Drive Pulley.
3. Reinstall the Stapler Transport Motor (RRP 6.74).

RRP 6.76 Transport Motor Drive Belt (PL 20.3)



SER817XA

SER817XA

RRP 6.76 Transport Motor Drive Belt (PL 20.3)

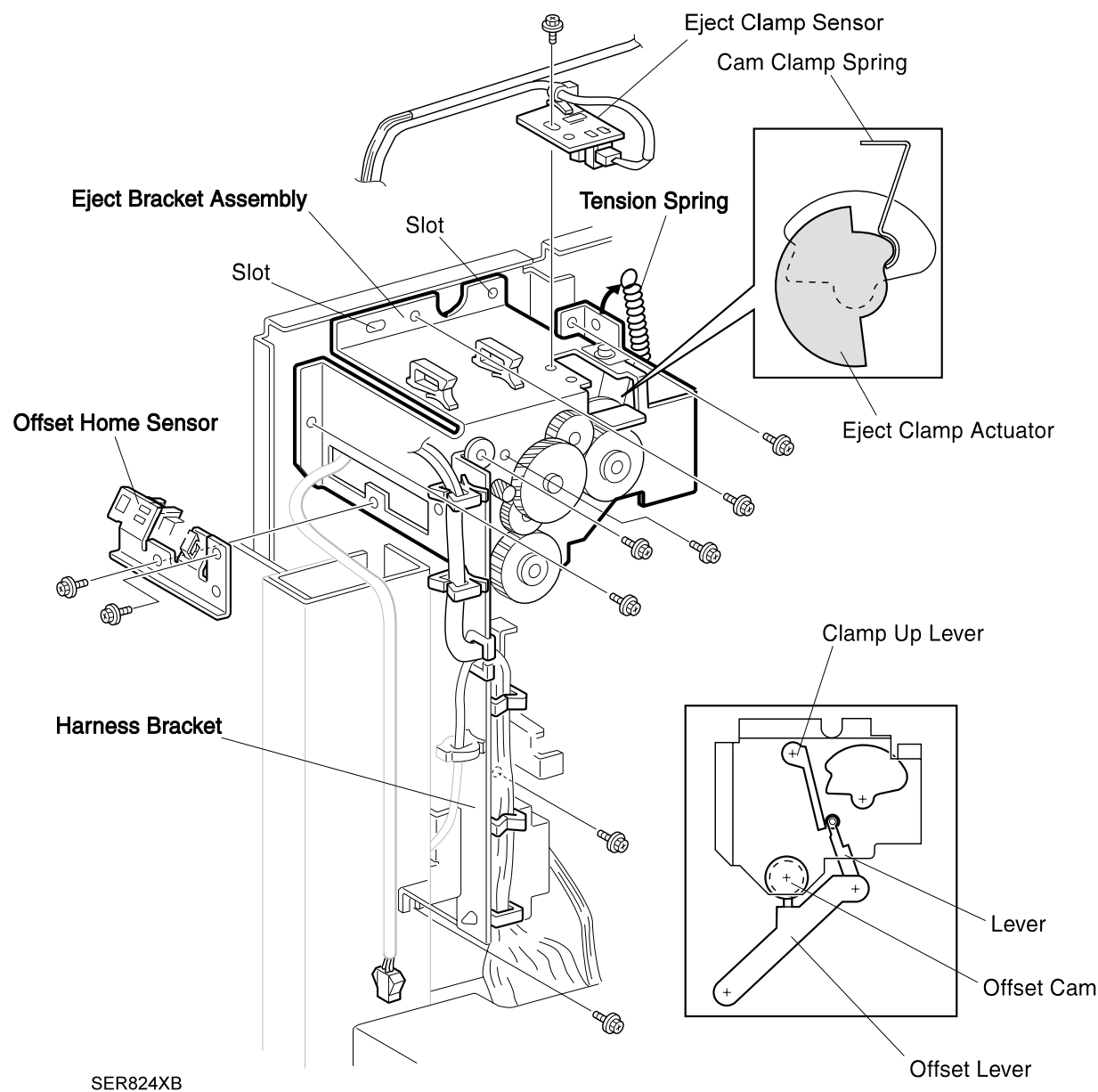
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Rear Cover (RRP 6.8).
3. Remove the Transport Motor (RRP 6.69).
4. Unhook the Tension Spring from the Transport Motor Bracket.
5. Remove the five screws securing the Transport Motor Bracket to the HCS frame, and remove the Bracket.
6. Remove the E rings from the two Gears that are located at each end of the Belt, and remove the Gears.
7. Remove the Transport Motor Drive Belt.

Replacement

1. Reinstall the Transport Motor Drive Belt.
2. Reinstall the two Gears to each end of the Belt, and use E rings to secure the Gears.
3. Reinstall the Transport Motor Bracket to the HCS frame, and use five screws to secure the Bracket.
4. Hook the Tension Spring onto the Transport Motor Bracket.
5. Reinstall the Transport Motor (RRP 6.69).
6. Reinstall the Rear Cover (RRP 6.8).
7. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.77 Eject Bracket Assembly (PL 20.4)



SER824XB

RRP 6.77 Eject Bracket Assembly (PL 20.4)

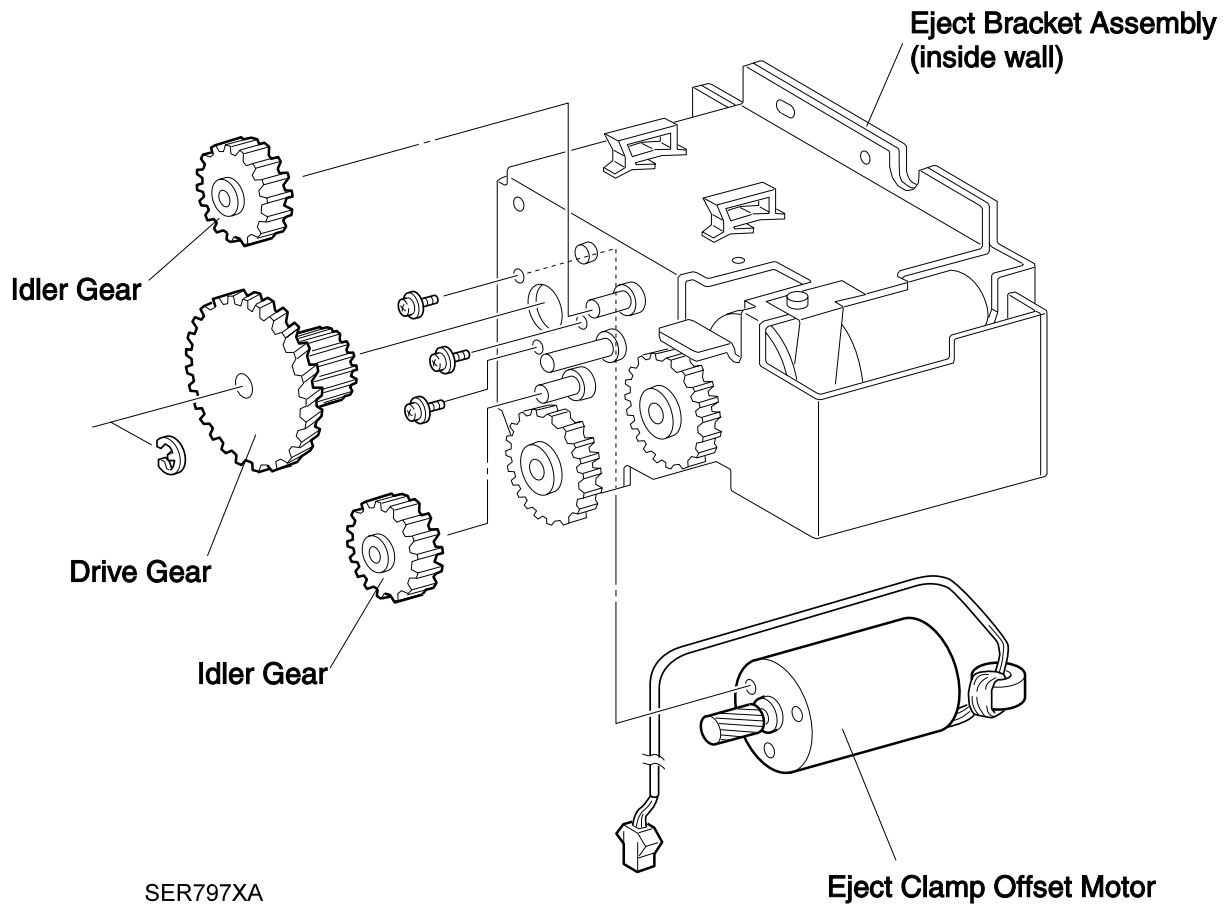
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Rear Cover (RRP 6.8).
3. Free the wire harnesses from the Harness Bracket Assembly.
4. Remove the three screws securing the Harness Bracket Assembly to the HCS frame, and remove the Assembly.
5. Remove the Offset Home Sensor (RRP 6.80).
6. Remove the Eject Clamp Sensor (RRP 6.79).
7. Unhook the Tension Spring from the Eject Bracket Assembly.
8. Remove the four screws securing the Eject Bracket Assembly to the HCS frame, and remove the Assembly.

Replacement

1. Align the Eject Clamp Actuator so the Cam Clamp Spring contacts the Actuator as shown in the detail in the figure.
2. Reinstall the Eject Bracket Assembly onto the HCS frame and align the slots in the Assembly with the tabs on the frame.
3. Align the Lever with the Clamp Up Lever as shown in the detail in the figure.
4. Align the tab of the Offset Lever so it rides in the groove of the Offset Cam.
5. Use four screws to secure the Assembly to the frame.
6. Hook the Tension Spring onto the Eject Bracket Assembly.
7. Reinstall the Eject Clamp Sensor (RRP 6.79).
8. Reinstall the Offset Home Sensor (RRP 6.80).
9. Reinstall the Harness Bracket Assembly to the HCS frame, and use three screws to secure the Bracket.
10. Reroute the wire harnesses through the clips in the Harness Bracket.
11. Reinstall the Rear Cover (RRP 6.8).
12. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.78 Eject Clamp Offset Motor (PL 20.4)



SER797XA

RRP 6.78 Eject Clamp Offset Motor (PL 20.4)

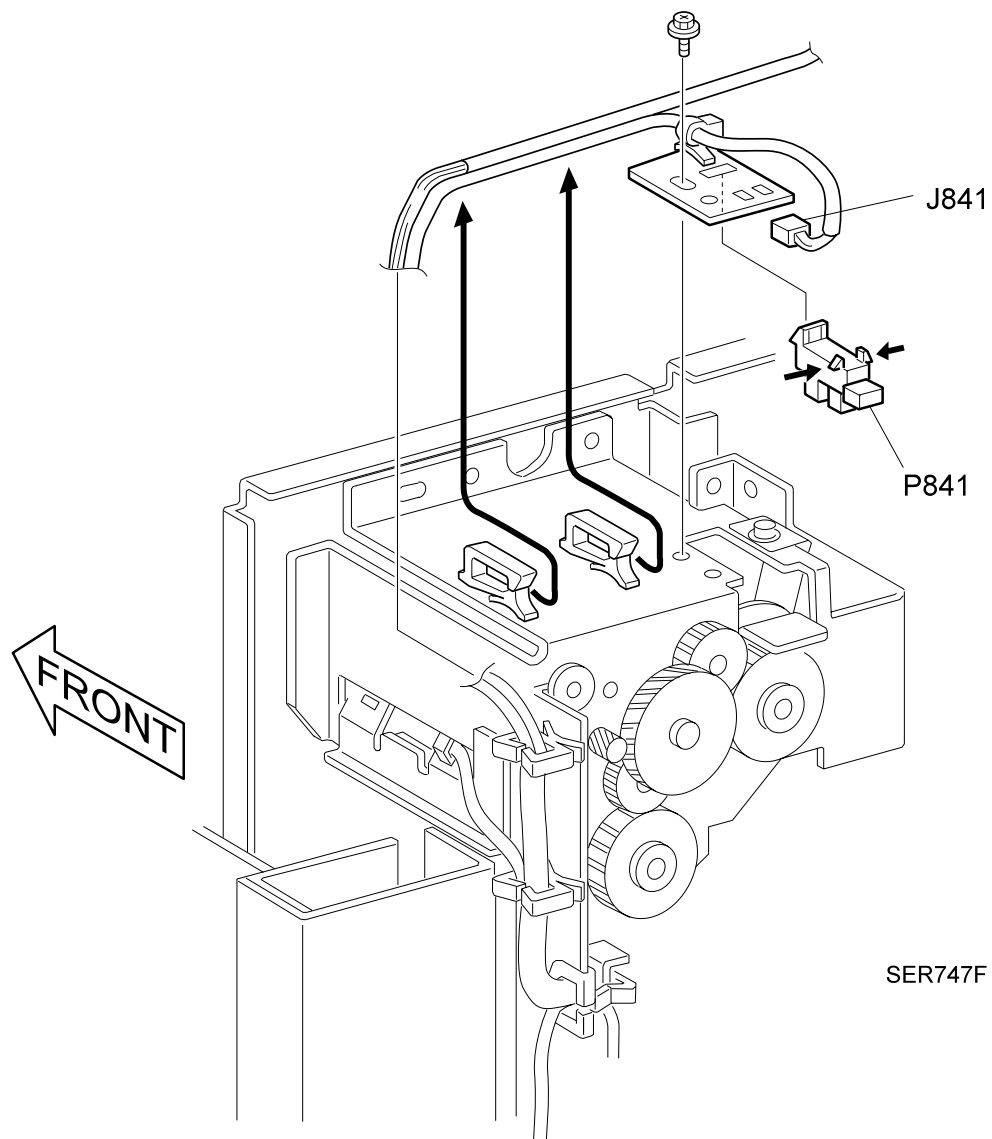
Removal

1. Remove the Eject Bracket Assembly (RRP 6.77).
2. Remove the E ring securing the One Way Gear to the Offset Cam Assembly, and remove the Gear.
3. Remove the E ring securing the Offset Cam Assembly bearing, and remove the Bearing.
4. Remove the Offset Cam Assembly from the Eject Bracket.
5. Remove the E ring securing the Drive Gear, and remove the Gear.
6. Remove the two Idler Gears.
7. Remove the three screws securing the Eject Clamp Offset Motor, and remove the Motor from the Eject Bracket Assembly.

Replacement

1. Reinstall the Eject Clamp Offset Motor into the Eject Bracket Assembly, and use three screws to secure the Motor.
2. Reinstall the two Idler Gears.
3. Reinstall the Drive Gear, and use an E ring to secure the Gear.
4. Reinstall the Offset Cam Assembly, with the Actuator toward the inside wall of the Eject Bracket Assembly, into the Assembly.
5. Reinstall the bearings to both ends of the Offset Cam Assembly Shaft.
6. Reinstall an E ring to short end of the Offset Cam Assembly Shaft.
7. Reinstall the One Way Gear to the end of Offset Cam Assembly Shaft, and use an E ring to secure the Gear to the Shaft.
8. Reinstall the Eject Bracket Assembly (RRP 6.77).

RRP 6.79 Eject Clamp Sensor (PL 20.4)



SER747F

RRP 6.79 Eject Clamp Sensor (PL 20.4)

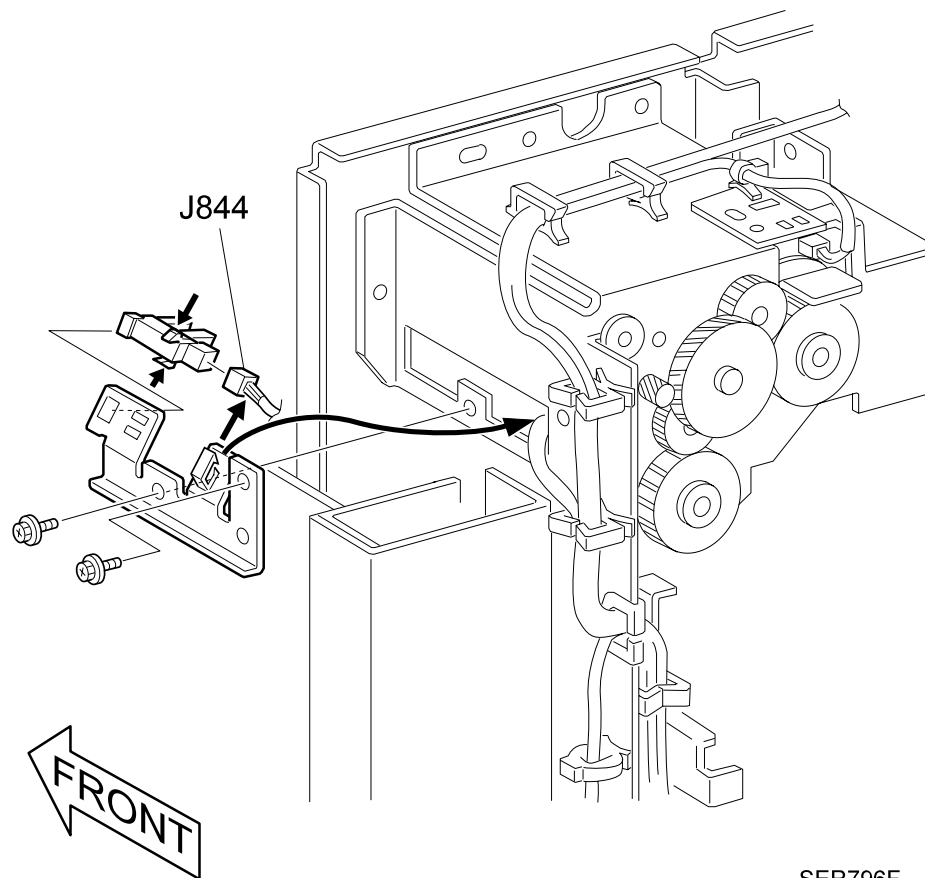
Removal

1. Remove the Rear Cover (RRP 6.8).
2. Remove the wire harnesses from the wire clamps that are attached to the Eject Bracket.
3. Remove the screw securing the Eject Clamp Sensor Bracket to the Eject Bracket, and remove the Sensor Bracket, along with Sensor.
4. Disconnect P841 from the Sensor.
5. Press in and release the Sensor latches that secure the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Eject Clamp Sensor as shown in the figure, and insert it. latches first, into cutout in the Eject Clamp Sensor Bracket.
2. Reconnect P841 to the Sensor.
3. Reinstall the Eject Clamp Sensor Bracket onto the Eject Bracket.
4. Use one screw to secure the Sensor Bracket to the Eject Bracket.
5. Reinstall the wire harnesses to the wire clamps that are attached to the Eject Bracket.
6. Reinstall the Rear Cover (RRP 6.8).

RRP 6.80 Offset Home Sensor (PL 20.4)



SER796F

RRP 6.80 Offset Home Sensor (PL 20.4)

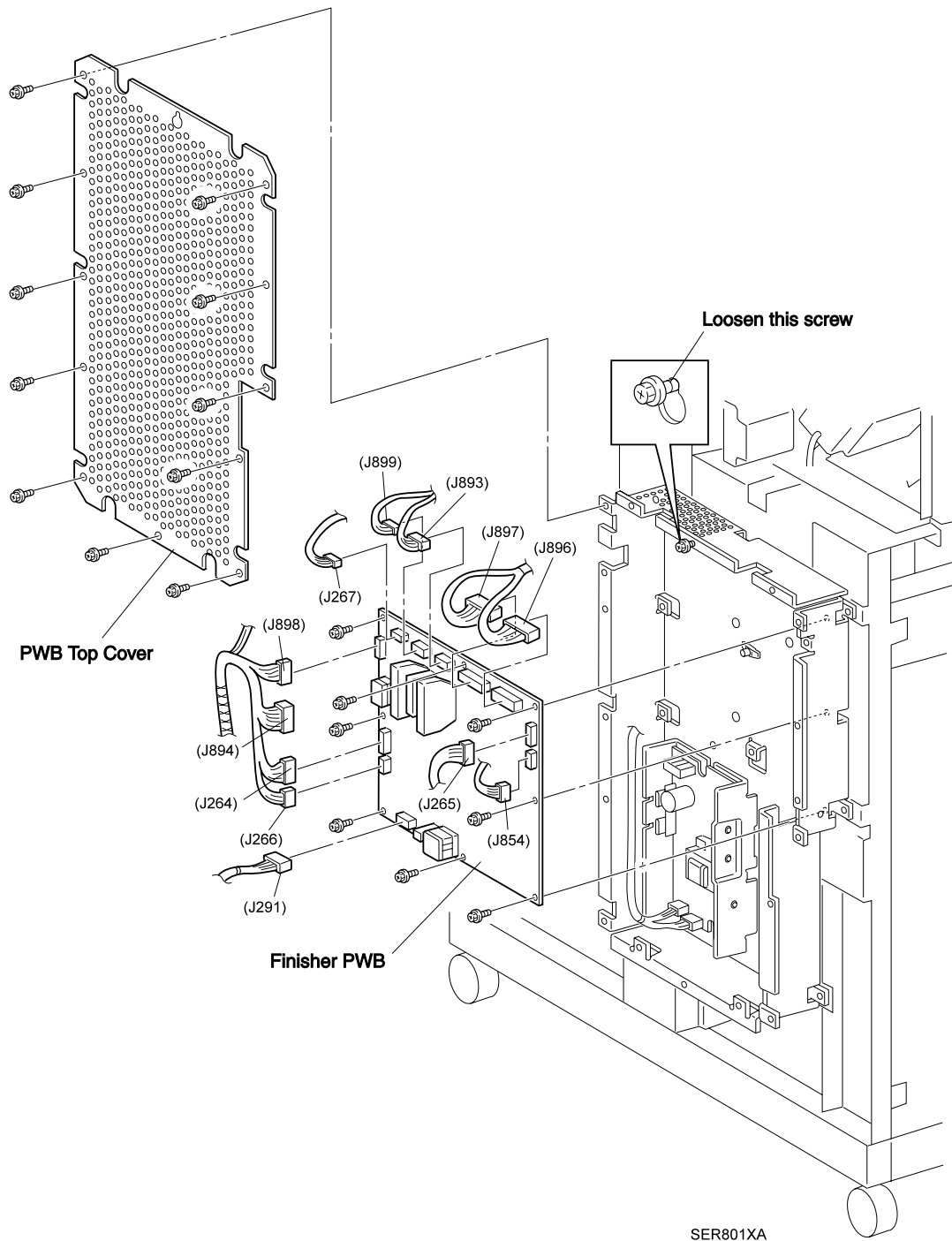
Removal

1. Remove the Rear Cover (RRP 6.8).
2. Remove the two screws securing the Offset Home Sensor Bracket to the HCS frame, and remove the Bracket.
3. Free the two wire harnesses from the wire clamp that is attached to the Bracket.
4. Disconnect J844 from the Offset Home Sensor.
5. Press in and release the Sensor latches that secure the Sensor to the Bracket, and remove the Sensor.

Replacement

1. Position the Offset Home Sensor as shown in the figure, and insert it latches first, into the cutout in the Sensor Bracket.
2. Reconnect J844 to the Offset Home Sensor.
3. Secure the two wire harnesses in the wire clamp that is attached to the Bracket.
4. Reinstall the Offset Home Sensor Bracket onto the HCS frame.
5. Use two screws to secure the Bracket to the frame.
6. Reinstall the Rear Cover (RRP 6.8).

RRP 6.81 Finisher PWB Assembly (PL 21.1)



SER801XA

RRP 6.81 Finisher PWB Assembly (PL 21.1)

Removal



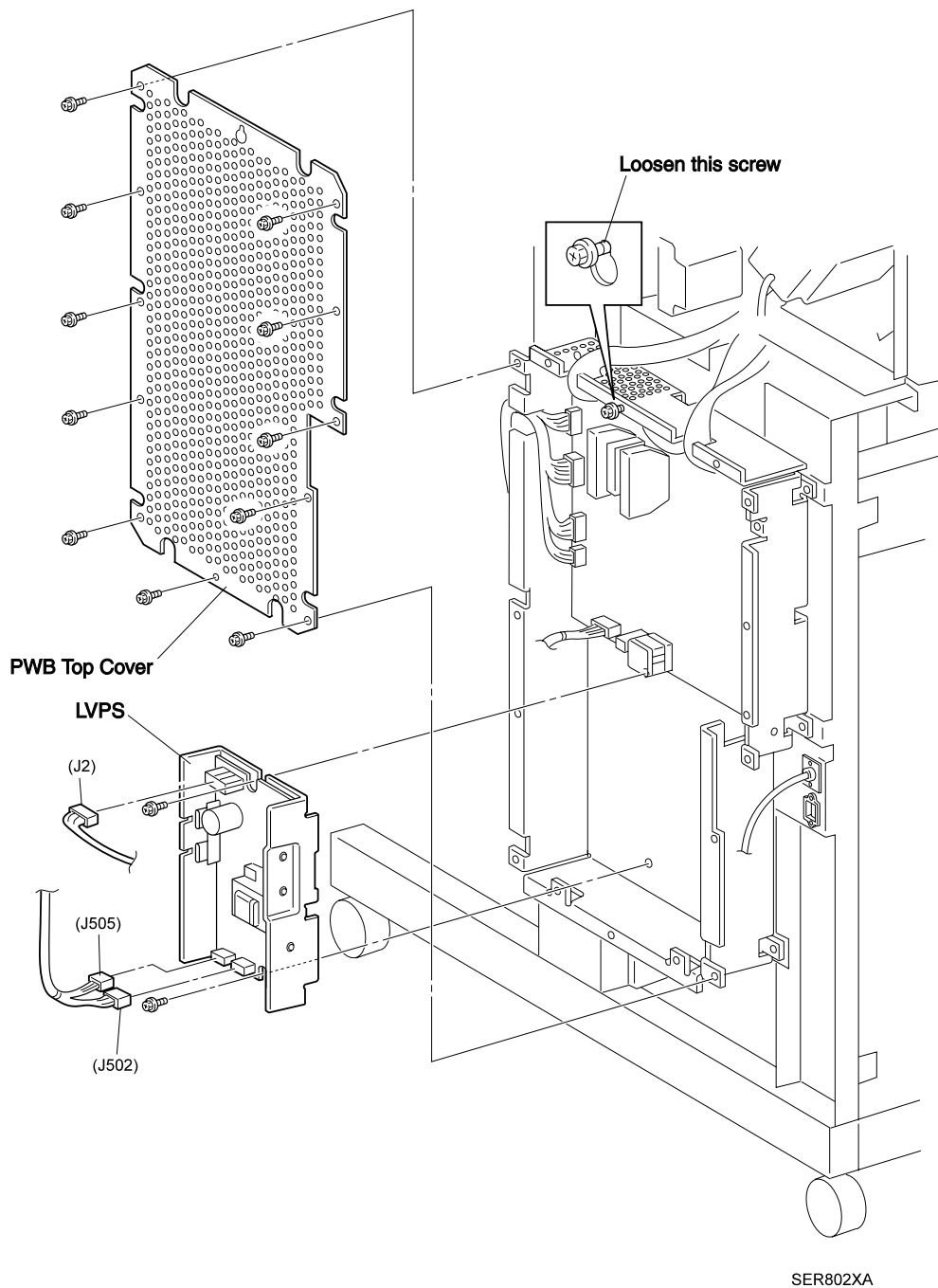
Disconnect all AC power to the HCS before working on the Finisher PWB.

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Finisher PWB Cover and Connector Cover (RRP 6.11).
3. Loosen, but do not remove, the screw that is located at the top center of the PWB Top Cover.
4. Remove the eleven screws securing the PWB Top Cover to the PWB Bracket.
5. Lift the PWB Top Cover up and away from the Bracket.
6. Disconnect the twelve P/Js that are connected to the Finisher PWB.
7. Remove the eight screws securing the Finisher PWB to the PWB Bracket, and remove the Finisher PWB from the Bracket.

Replacement

1. Position the Finisher PWB according to the figure, and reinstall it onto the PWB Bracket.
2. Use eight screws to secure the Finisher PWB to the PWB Bracket.
3. Reconnect the twelve P/Js to the Finisher PWB.
4. Reinstall the PWB Top Cover by first slipping the keyed hole at the top of the Cover, over the loosened screw on the PWB Bracket.
5. Use eleven screws to secure the PWB Top Cover to the PWB Bracket.
6. Tighten the loose screw that is located at the top center of the PWB Top Cover.
7. Reinstall the Finisher PWB Cover and Connector Cover (RRP 6.11).
8. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.82 LVPS (OP11/OPR4H) (PL 21.1)



SER802XA

Removal

Disconnect all AC power to the HCS before working on the LVPS.

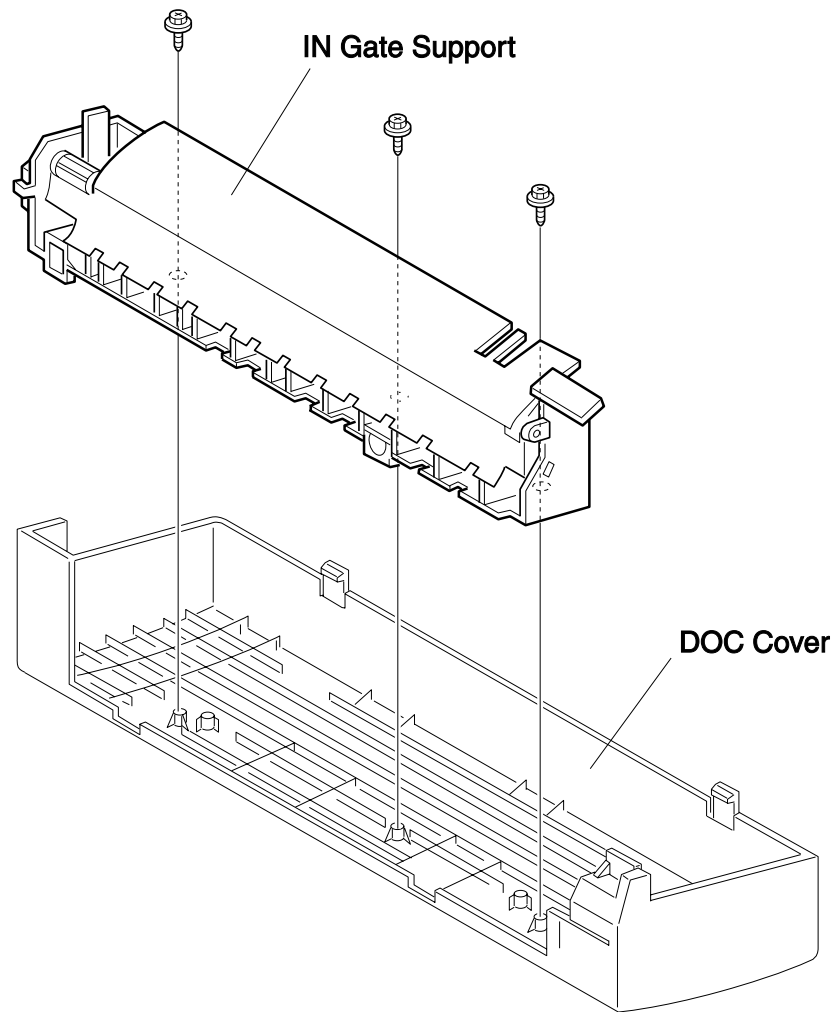


1. Separate the HCS from the printer (RRP 6.1).
2. Remove the Finisher PWB Cover and Connector Cover (RRP 6.11).
3. Loosen, but do not remove, the screw that is located at the top center of the PWB Top Cover.
4. Remove the eleven screws securing the PWB Top Cover to the PWB Bracket.
5. Lift the PWB Top Cover up and away from the Bracket.
6. Disconnect J2, J502, and J505 from the LVPS PWB.
7. Remove the two screws (one top, one bottom) securing the LVPS PWB to the PWB Bracket, and remove the LVPS PWB from the Bracket.

Replacement

1. Position the LVPS according to the figure, and reinstall it onto the PWB Bracket.
2. Use two screws (one top, one bottom) to secure the LVPS PWB to the PWB Bracket.
3. Reconnect J2, J502, and J505 to the LVPS PWB.
4. Reinstall the PWB Top Cover by first slipping the keyed hole at the top of the Cover, over the loosened screw on the PWB Bracket.
5. Use eleven screws to secure the PWB Top Cover to the PWB Bracket.
6. Tighten the loose screw that is located at the top center of the PWB Top Cover.
7. Reinstall the Finisher PWB Cover and Connector Cover (RRP 6.11).
8. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.83 DOC Cover Assembly (PL 22.1)



SER732XA

SER732XA

RRP 6.83 DOC Cover Assembly (PL 22.1)

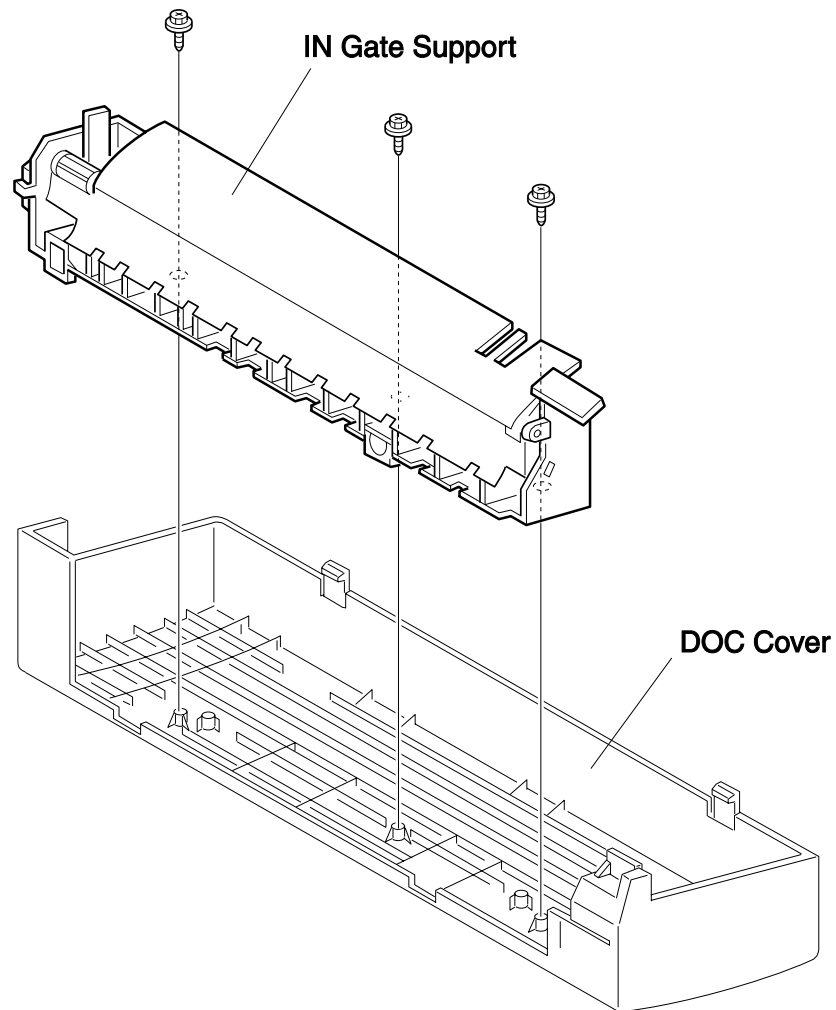
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Lift the DOC HCS off of the Fuser.
3. Turn the DOC HCS upside down and place it on a stable work surface.
4. Remove the three screws securing the IN Gate Support to the DOC Cover, and lift the Support off of the Cover.

Replacement

1. Turn the DOC Cover upside down and place it on a stable work surface.
2. Position the IN Gate Support as shown in the figure, and reinstall it on the DOC Cover.
3. Align the two positioning holes in the Support with the two positioning tabs on the Cover.
4. Use three screws to secure the IN Gate Support to the DOC Cover.
5. Reinstall the DOC HCS onto the Fuser.
6. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.84 IN Gate Support Assembly (PL 22.1)



SER732XA

SER732XA

RRP 6.84 IN Gate Support Assembly (PL 22.1)

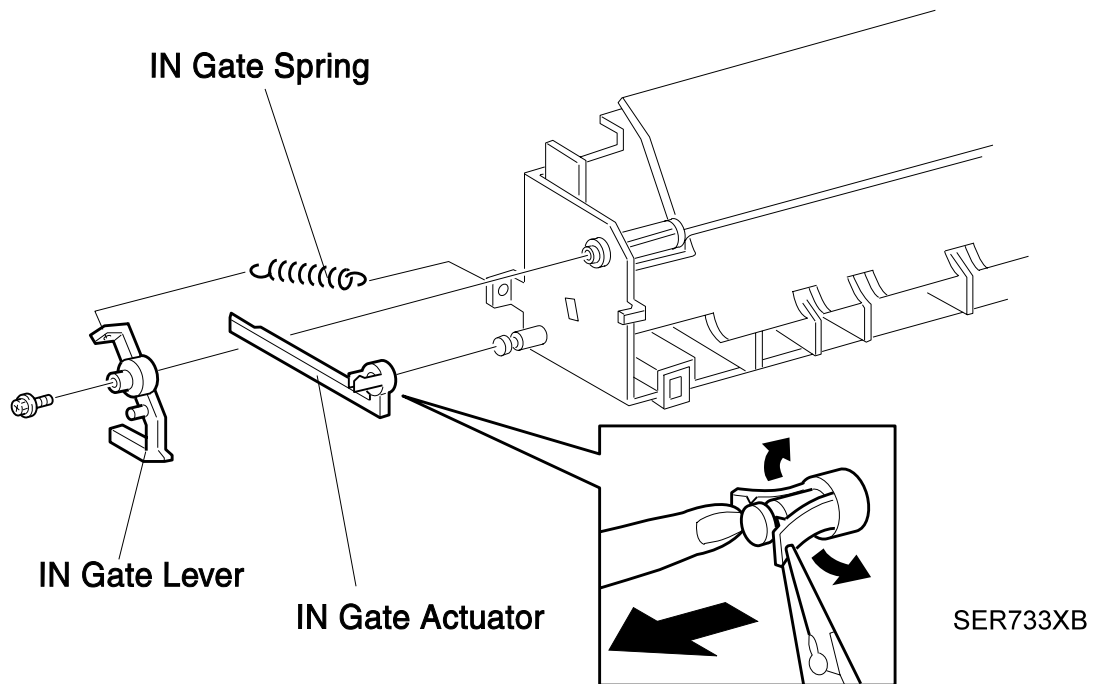
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Lift the DOC HCS off of the Fuser.
3. Turn the DOC HCS upside down and place it on a stable work surface.
4. Remove the three screws securing the IN Gate Support to the DOC Cover, and lift the Support off of the Cover.

Replacement

1. Turn the DOC Cover upside down and place it on a stable work surface.
2. Position the IN Gate Support as shown in the figure, and reinstall it on the DOC Cover.
3. Align the two positioning holes in the Support with the two positioning tabs on the Cover.
4. Use three screws to secure the IN Gate Support to the DOC Cover.
5. Reinstall the DOC HCS onto the Fuser.
6. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.85 IN Gate Actuator (PL 22.1)



SER733XB

RRP 6.85 IN Gate Actuator (PL 22.1)

Removal

1. Remove the IN Gate Support Assembly (RRP 6.84).
2. Spread the latch arms of the Actuator and slide it off of the shaft.

Replacement

1. Position the IN Gate Actuator as shown in the figure.
2. Press the IN Gate Actuator onto the shaft.

It snaps into place.

3. Reinstall the IN Gate Support Assembly (RRP 6.84).

RRP 6.86 Transport Assembly (PL 17.1)

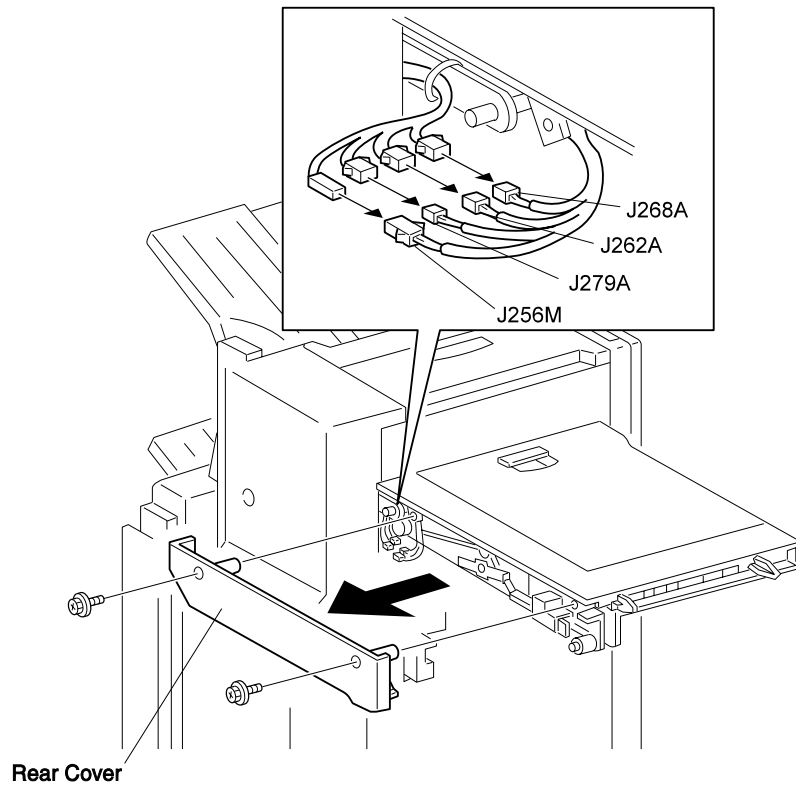


Figure 1

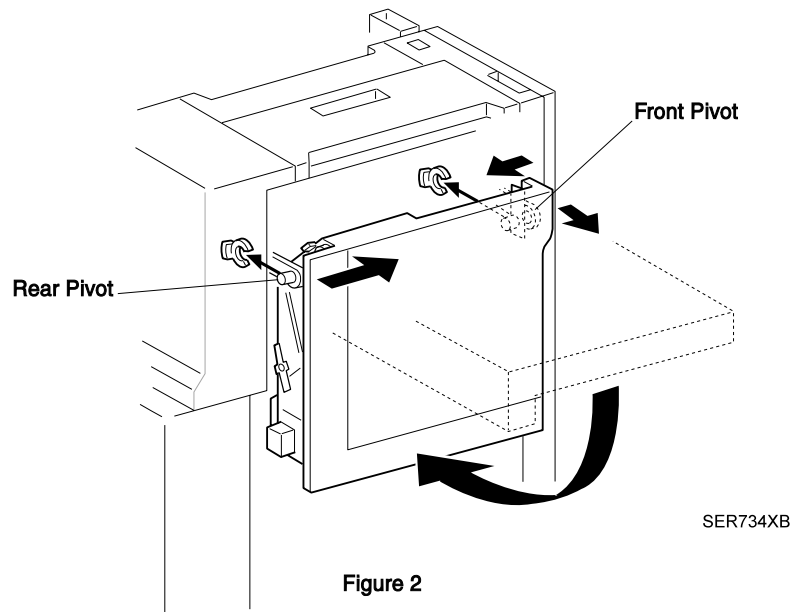


Figure 2

SER734XB

RRP 6.86 Transport Assembly (PL 17.1)

Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Remove the two screws securing the Transport Rear Cover to the Transport Assembly, and remove the Cover (Figure 1).
3. Disconnect J256M, J262A, J263A, and J268A.
4. Fold up and lock the two Support Arms that are located under the Transport Assembly, and lower the Assembly.
5. Remove the two K Clips from the Transport Assembly front and rear pivot shafts.
6. Slide the Assembly to the left to free the front pivot, then pull the front of the Assembly away from the HCS frame.
7. Slide the Assembly to the right to free the rear pivot, and remove the Assembly.

Replacement

1. Fold up and lock the two Support Arms that are located under the Transport Assembly.
2. Hold the Transport Assembly vertically, as shown in figure 2.
3. Insert the Transport Assembly rear pivot into the hole in the rear Transport Bracket.
4. Insert the Transport Assembly front pivot into the hole in the front of the Assembly.
5. Use two K Clips to secure the front and rear pivot shafts.
6. Raise the Transport Assembly into the horizontal position, and lower and lock the two Support Arms that are located under the Assembly.
7. Reconnect J256M, J262A, J263A, and J268A.
8. Reinstall the Transport Rear Cover onto the Transport Assembly, and use two screws to secure the Cover.
9. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.87 Transport Assembly Drive Belt (PL 23.1.9)

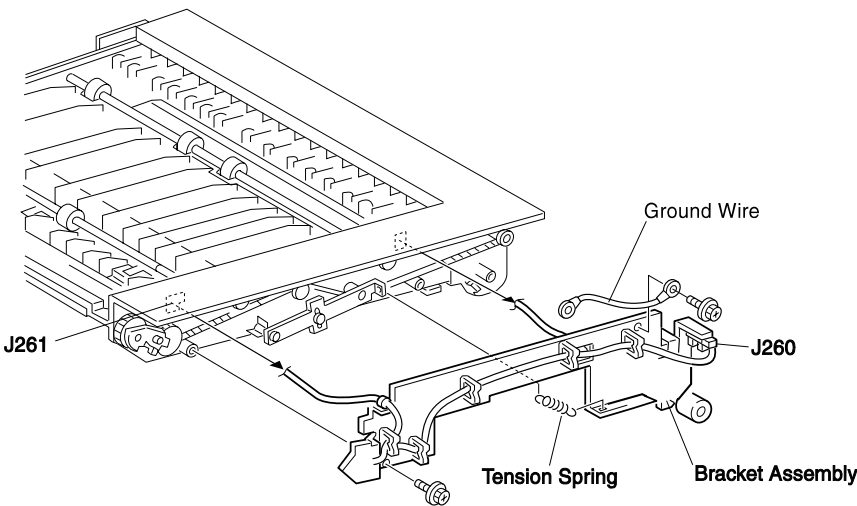


Figure 1

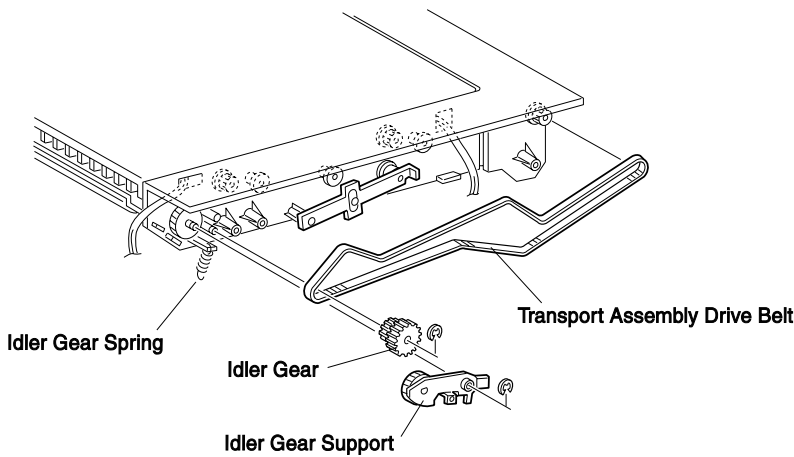


Figure 2

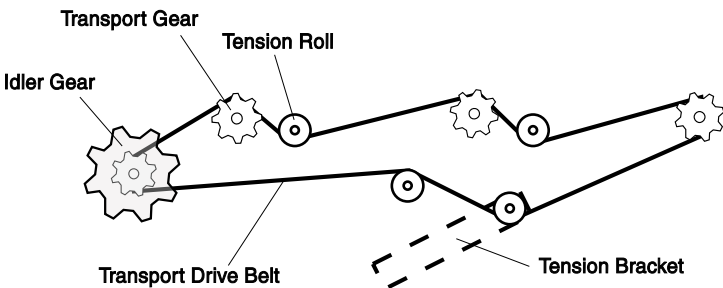


Figure 3

SER740XB

SER740XB

RRP 6.87 Transport Assembly Drive Belt (PL 23.1.9)

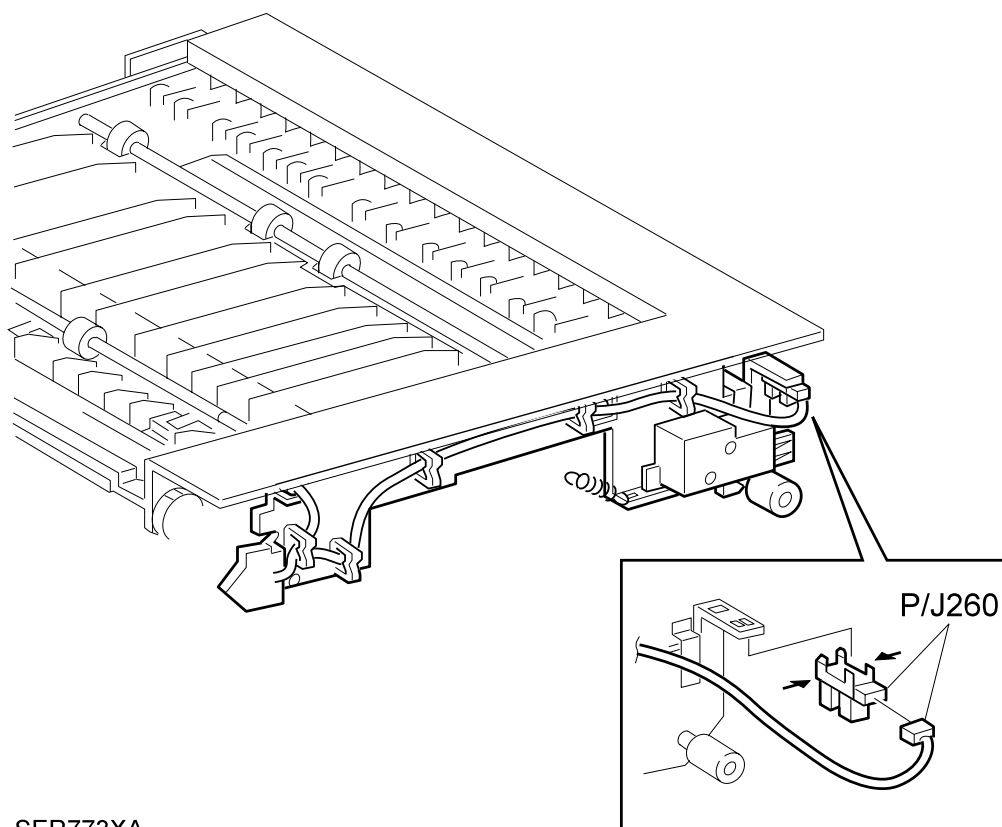
Removal

1. Remove the Transport Assembly (RRP 6.86).
2. Unhook the Tension Spring (Figure 1).
3. Disconnect J260 from the IN Gate Interlock Sensor.
4. Remove the wire harness from the harness clips that are attached to the Bracket Assembly.
5. Remove the two screws securing the IN Gate Solenoid Assembly to the Bracket Assembly, and remove the Solenoid Assembly.
6. Remove the screw securing the ground wire to the Bracket Assembly, and remove the wire.
7. Remove the two screws securing the Bracket Assembly to the Transport frame, and pull the Bracket away from the frame.
8. Remove the two screws securing the Tension Bracket to the Transport frame, and remove the Bracket (Figure 2).
9. Unhook the Idler Gear Spring from the Transport frame.
10. Remove the E Ring securing the Idler Gear Support to the frame, and remove the Support.
11. Remove the E Ring securing the Idler Gear to the frame, and remove the Idler Gear.
12. Remove the Transport Assembly Drive Belt.

Replacement

1. Align the Transport Assembly Drive Belt so the ribbed side of the belt is on the inside.
2. Reinstall one end of Transport Assembly Drive Belt over the Idler Gear shaft.
3. Reinstall the Idler Gear, making sure the Drive Belt loops around the rear teeth of the Idler Gear.
4. Use an E Ring to secure the Idler Gear to the Transport frame.
5. Route the Drive Belt as shown in figure 3, with the ribbed side of the Belt always facing a Transport Gear.
6. Reinstall the Idler Gear Support, and use one E Ring to secure it to the frame.
7. Hook the Idler Gear Spring onto the Transport frame.
8. Reinstall the Tension Bracket onto the Transport frame, making sure the Tension Roll rides on the ribbed side of the belt.
9. Use two screws to secure the Tension Bracket to the frame.
10. Reinstall the Bracket Assembly onto the Transport frame, and use two screws to secure the Bracket.
11. Reinstall the IN Gate Solenoid Assembly to the Bracket Assembly, and use two screws to secure the Solenoid to the Bracket.
12. Reinstall the ground wire to the Bracket Assembly, and use one screw to secure the wire.
13. Make sure that J261 is still connect to the Transport Interlock Sensor.
14. Reroute the wire harnesses through the clips that are attached to the Bracket Assembly.
15. Reconnect J260 to the IN Gate Interlock Sensor.
16. Hook the Tension Spring onto the Tension Bracket.
17. Reinstall the Transport Assembly (RRP 6.86).

RRP 6.88 IN Gate Interlock Switch (PL 23.1)



SER773XA

SER773XA

RRP 6.88 IN Gate Interlock Switch (PL 23.1)

Removal

1. Remove the Transport Assembly (RRP 6.86).
2. Disconnect P/J260 from the IN Gate Interlock Switch.
3. Squeeze the latches that are located at the rear of the Switch, and pull the Switch off of the Bracket Assembly.

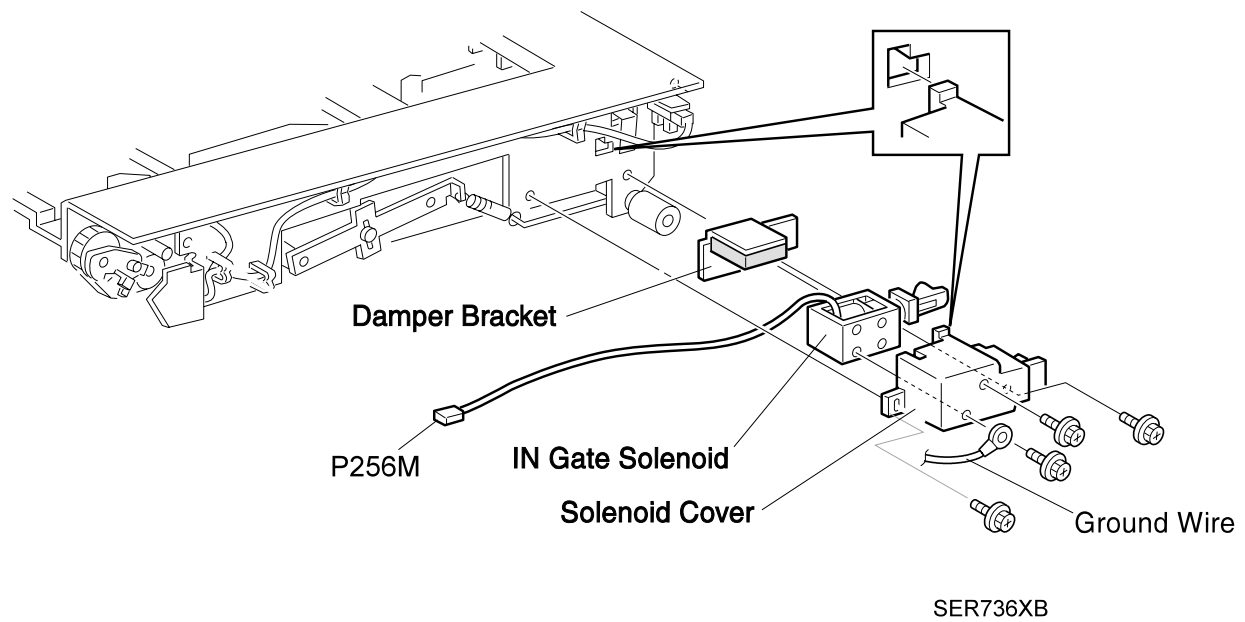
Replacement

1. Position the IN Gate Interlock Switch as shown in the figure.
2. Press the Switch latches into the cutouts in the Bracket Assembly.

The Switch snaps into place.

3. Reconnect P/J260 to the Switch.
4. Reinstall the Transport Assembly (RRP 6.86).

RRP 6.89 IN Gate Solenoid Assembly (PL 23.1)

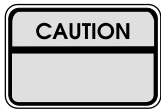


SER736XB

RRP 6.89 IN Gate Solenoid Assembly (PL 23.1)

Removal

1. Remove the Transport Assembly (RRP 6.86).
2. Remove the Solenoid wire harness (P256M) from the harness clips.
3. Remove the screw securing the ground wire to the Solenoid Assembly.
4. Remove the two screws securing the Solenoid Assembly to the Bracket, and remove the Assembly.
5. Pull the Damper Bracket out of the Solenoid Assembly.
6. Remove the two screws securing the Solenoid Cover to the Solenoid, hold on to the Solenoid plunger and remove the Solenoid from the Cover.

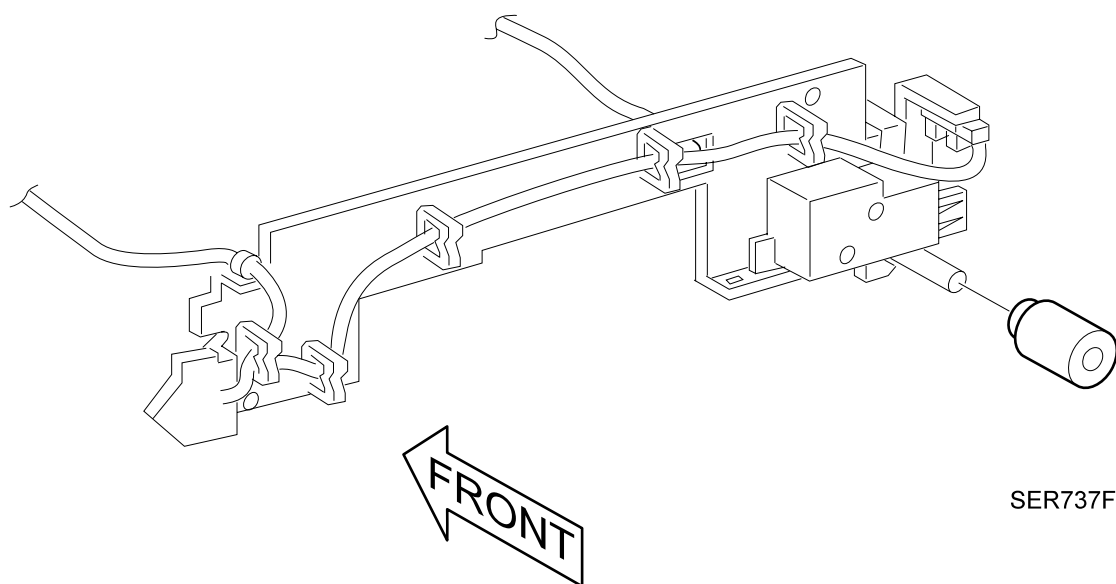


The Solenoid plunger is under spring tension and will pop out of the Solenoid when you remove the Solenoid from the Solenoid Cover.

Replacement

1. Make sure the Solenoid Spring and Link Assembly are in place on the Solenoid plunger.
2. Slide the IN Gate Solenoid into the Solenoid Cover, hooking the cutout in the Link Assembly over the tab in the Cover.
3. Use two screws to secure the Solenoid Cover to the Solenoid.
4. Slide the Damper Bracket, foam rubber against the Solenoid coil, into the Solenoid Cover.
5. Hook the tab on the Cover into the cutout in the Bracket, and slide the Solenoid Assembly forward to line up the two screw holes.
6. Use two screws to secure the Solenoid Assembly to the Bracket.
7. Reinstall the ground wire to the Solenoid Assembly, and use one screw to secure the wire.
8. Reroute the Solenoid wire harness through the harness clips on the Bracket.
9. Reinstall the Transport Assembly (RRP 6.86).

RRP 6.90 Roller Unit (PL 23.1)



SER737F

RRP 6.90 Roller Unit (PL 23.1)

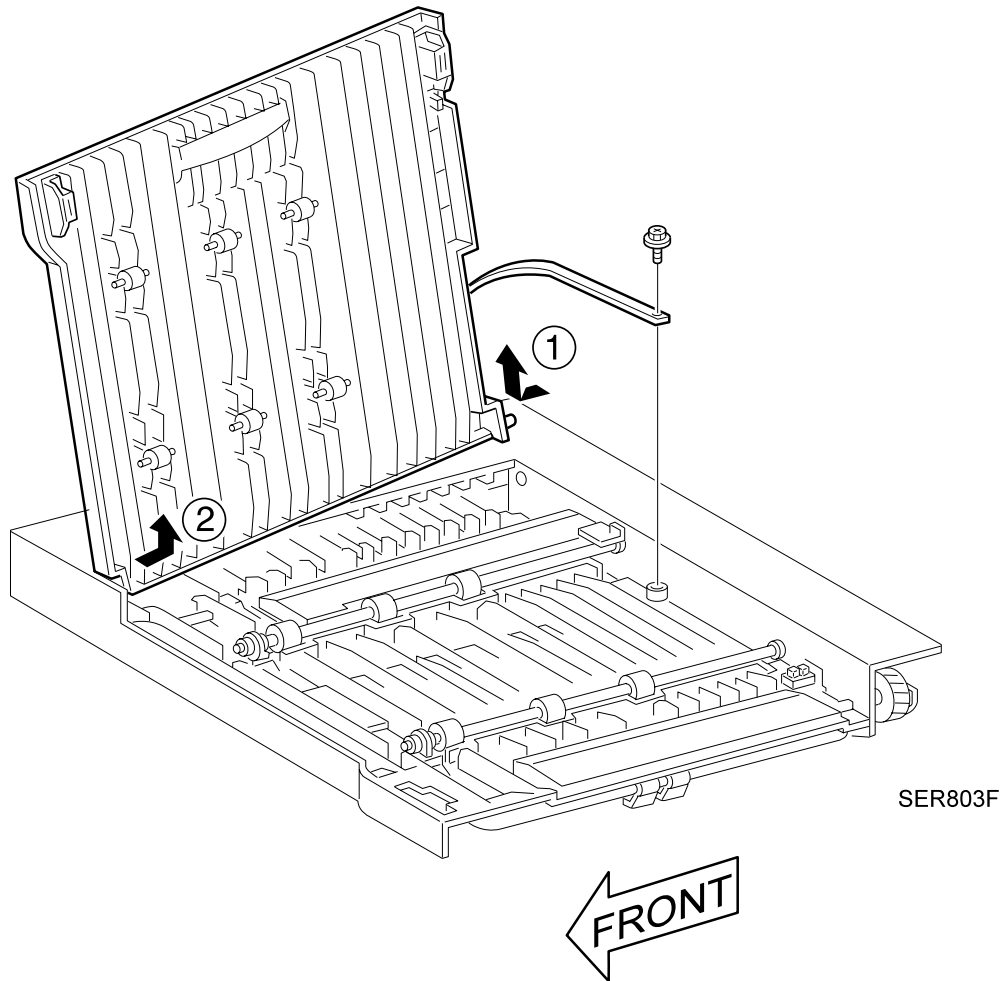
Removal

1. Remove the Transport Assembly (RRP 6.86).
2. Slide the Roller Unit off of the Bracket Assembly shaft.

Replacement

1. Position the Roller Unit so the flat end of the Roller faces away from the Bracket.
2. Slide the Roller onto the Bracket Assembly shaft.
3. Reinstall the Transport Assembly (RRP 6.86).

RRP 6.91 Transport Cover Assembly (PL 23.2.1)



SER803F

RRP 6.91 Transport Cover Assembly (PL 23.2.1)

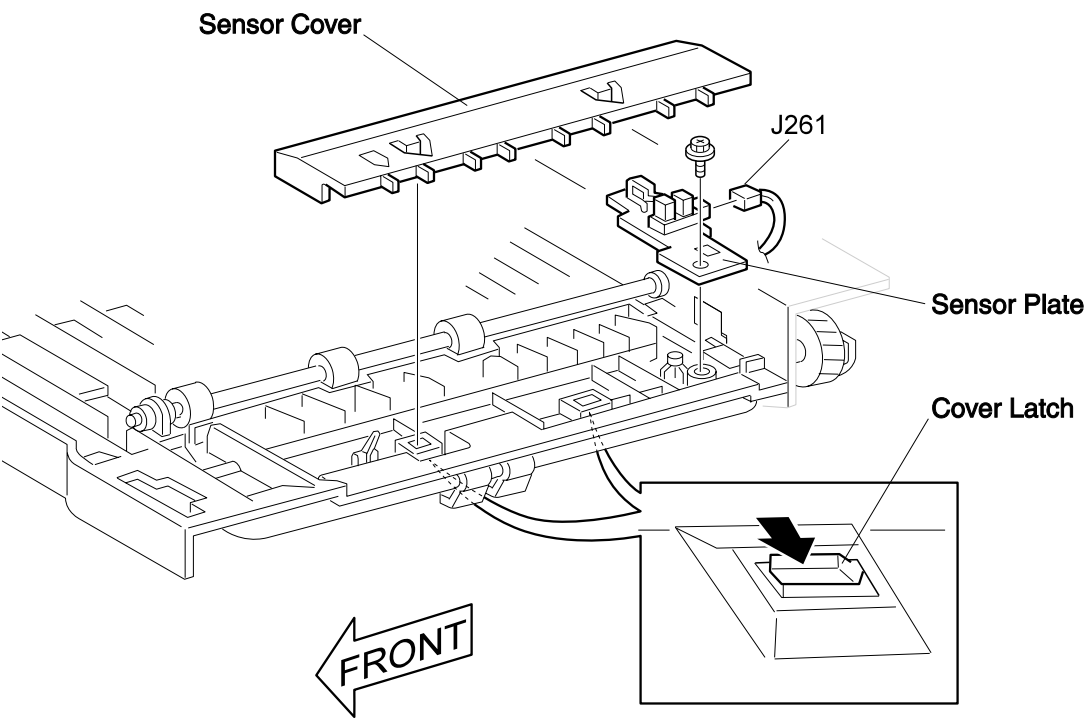
Removal

1. Remove the Transport Assembly (RRP 6.86).
2. Open the Transport.
3. Remove the screw securing the Cover Support Strap to the Transport.
4. Use the flat blade of a screwdriver to carefully pry the Cover rear pivot (item 2 in the figure) away from the Transport.
5. Remove the Transport Cover Assembly.

Replacement

1. Reinstall the Cover front pivot (item 1 in the figure) into the pivot hole at the front of the Transport.
2. Use the flat blade of a screwdriver to help insert the rear Transport pivot (item 2 in the figure) into the rear Cover pivot hole.
3. Reinstall the free end of the Cover Support strap onto the Transport, and use one screw to secure the strap.
4. Reinstall the Transport Assembly (RRP 6.86).

RRP 6.92 Transport Interlock Sensor (PL 23.2)



SER809XA

SER809XA

RRP 6.92 Transport Interlock Sensor (PL 23.2)

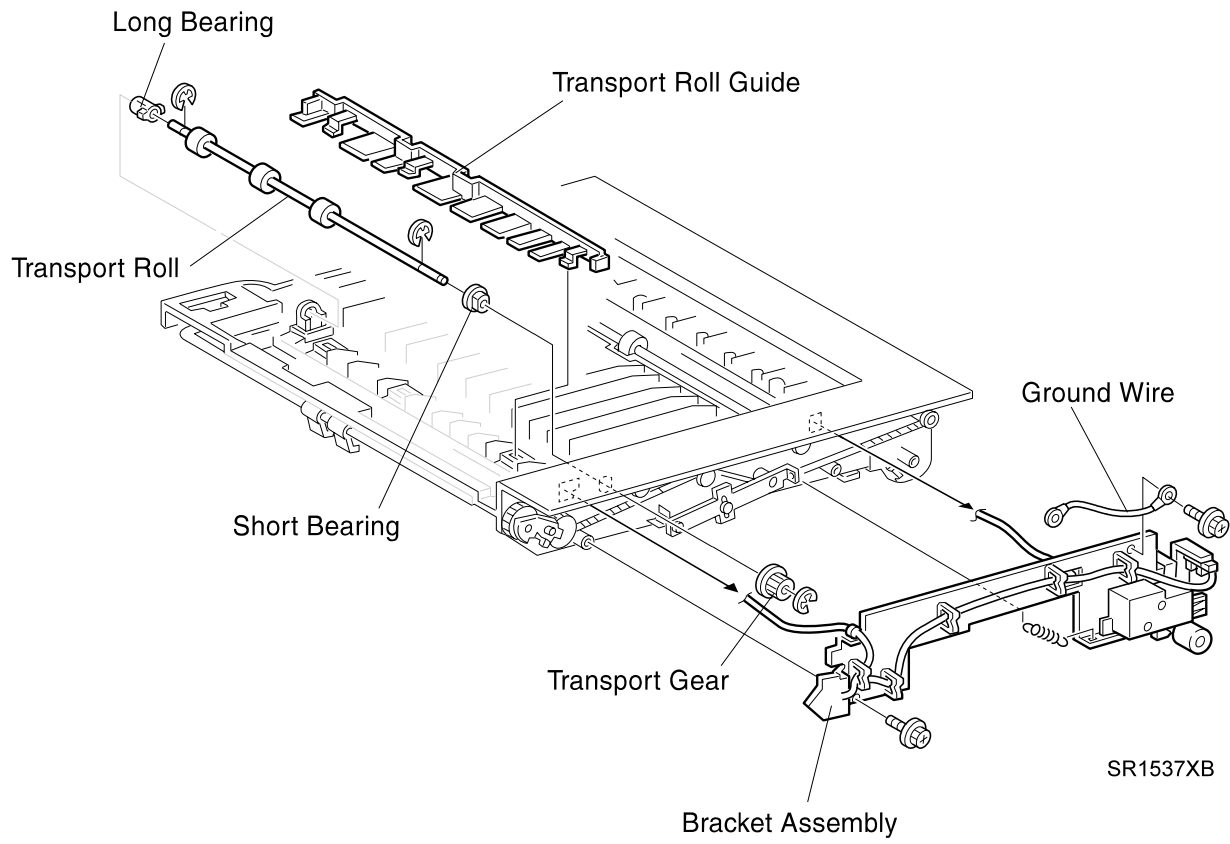
Removal

1. Open the Transport Cover.
2. Carefully pry up on the Transport Exit Sensor Cover while you release the two latches securing the Cover to the Transport, and remove the Cover.
3. Remove the wire that is attached to the wire clip on Transport Interlock Sensor Plate.
4. Remove the screw securing the Transport Interlock Sensor Plate to the Transport, and remove the Plate along with the attached Sensor.
5. Disconnect J261 from the Sensor.
6. Release the latches securing the Sensor to the Plate, and remove the Sensor.

Replacement

1. Position the Transport Interlock Sensor against the Sensor Plate, as shown in the figure.
2. Press the latches that are located on the rear of the Sensor into the cutouts in the Plate.
3. Reconnect J261 to the Sensor.
4. Reinstall the Sensor Plate onto the Transport, making sure you align the positioning hole in the Plate with the positioning tab on the Transport.
5. Use one screw to secure the Plate to the Transport.
6. Take the wire you removed in step 3, and attach it to the wire clip on the Transport Interlock Sensor Plate.
7. Reinstall the Transport Exit Sensor Cover by first inserting the two latches into the latch openings in the Transport, then pressing the Cover into place.
8. Close the Transport Cover.

RRP 6.93 Transport Roll (PL 23.2)



SR1537XB

RRP 6.93 Transport Roll (PL 23.2)

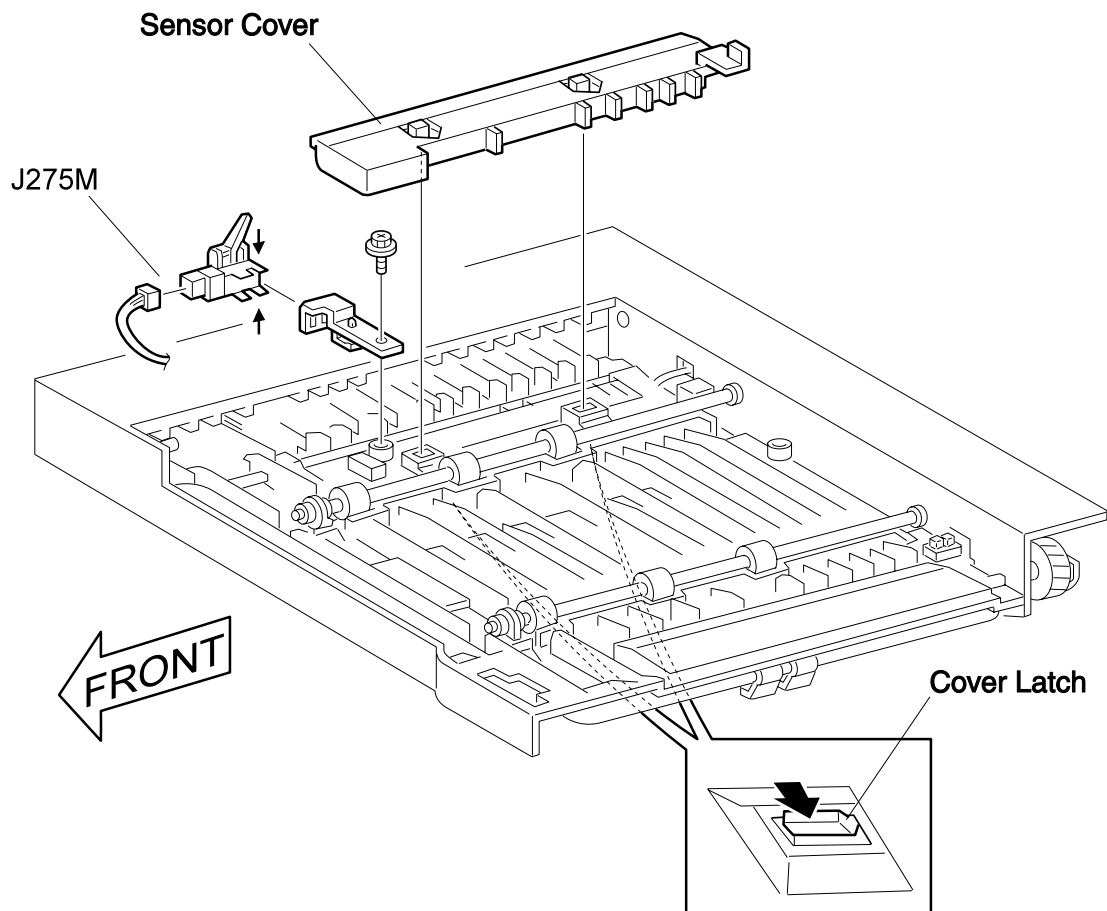
Removal

1. Remove the Transport Assembly (RRP 6.86).
2. Remove the wire harness from the harness clips that are attached to the Bracket Assembly.
3. Unhook the Tension Spring from the Bracket Assembly.
4. Remove the IN Gate Solenoid Assembly (RRP 6.89).
5. Remove the two screws securing the Bracket Assembly to the Transport frame, and pull the Bracket far enough away from the frame so you can access the Transport Gears. One of the screws secures the ground wire to the Bracket.
6. Remove the E Ring securing the Transport Gear to the Transport frame, and slide the Gear off of the shaft.
7. Open the Transport Cover.
8. Carefully pry up on the Transport Roll Guide while you release the three latches securing the Guide to the Transport, and remove the Guide.
9. Remove the two E Rings securing each end of the Transport Roll, and remove the Roll and bearings.

Replacement

1. Reinstall the bearings onto the ends of the Transport Roll.
2. Slide the rear of the Transport Roll shaft through the bearing hole in the rear of the Transport frame.
3. Slide the front of the Transport Roll shaft through the bearing hole in the front of the Transport frame.
4. Secure each bearing into the bearing holes.
5. Use an E Ring at each end of the shaft to secure the shaft to the bearings.
6. Reinstall the Transport Roll Guide by first inserting the three latches into the latch openings in the Transport, then pressing the Guide into place.
7. Reinstall the Transport Gear onto the Transport Roll shaft.
8. Use an E Ring to secure the Gear to the shaft.
9. Make sure the Transport Drive Belt runs on top of the Gear. (See RRP 6.87 for the correct positioning of the Drive Belt).
10. Reinstall the Bracket Assembly to the Transport frame.
11. Reinstall the ground wire, as shown in the figure, and use one screw to secure the ground wire to the Assembly, and to secure the Assembly to the frame.
12. Use one more screw to complete the securing of the Assembly to the frame.
13. Reinstall the IN Gate Solenoid Assembly (RRP 6.89).
14. Hook the Tension Spring onto the Bracket Assembly.
15. Make sure that J261 is still connected to the Transport Interlock Sensor.
16. Reinstall the wire harnesses into the harness clips that are attached to the Bracket Assembly.
17. Reinstall the Transport Assembly (RRP 6.86).

RRP 6.94 Transport Entrance Sensor (PL 23.2)



SER741XA

SER741XA

RRP 6.94 Transport Entrance Sensor (PL 23.2)

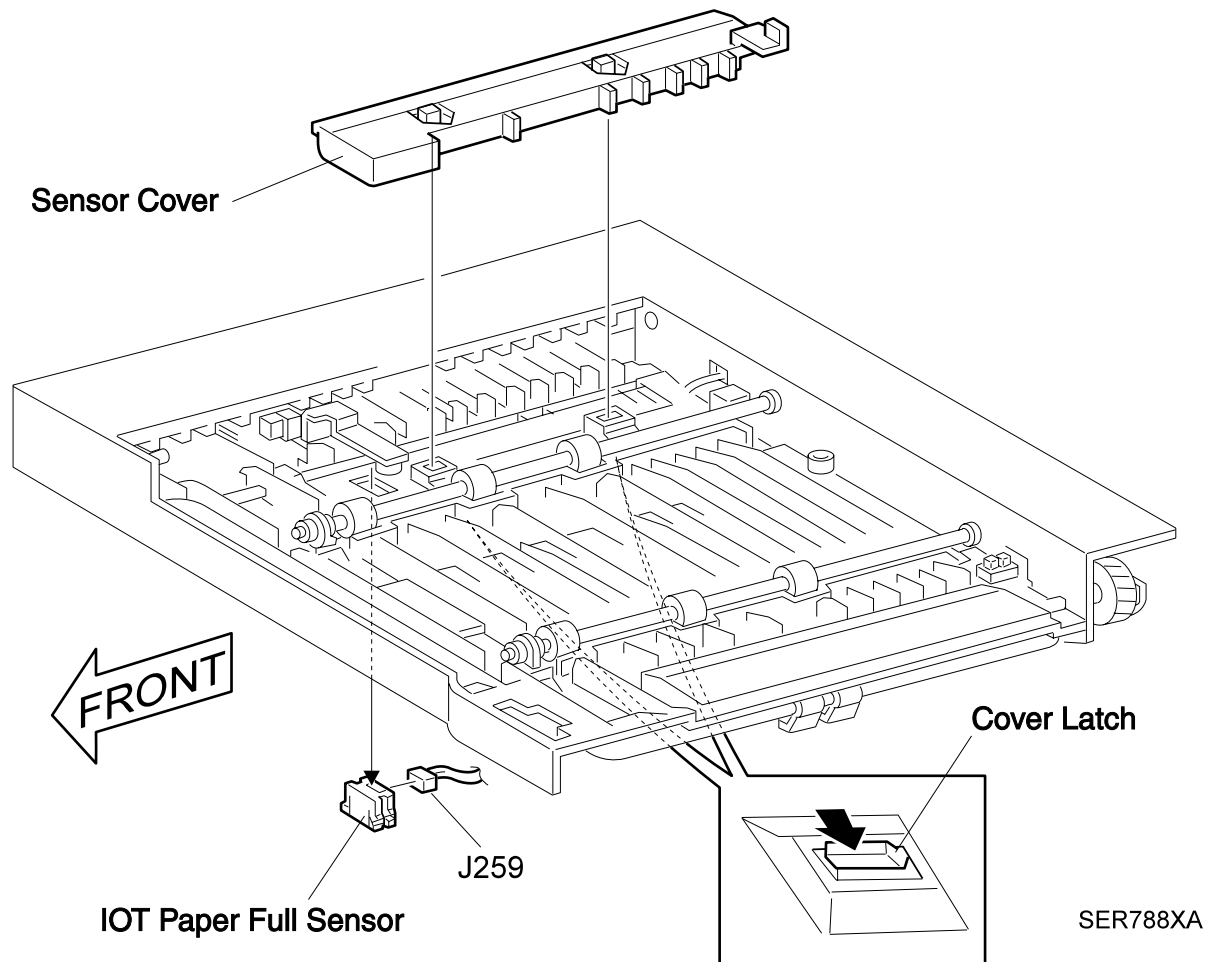
Removal

1. Open the Transport Cover.
2. Carefully pry up on the Transport Entrance Sensor Cover while you release the two latches securing the Cover to the Transport, and remove the Cover.
3. Remove the screw securing the Transport Entrance Sensor Plate to the Transport, and remove the Plate along with the attached Sensor.
4. Disconnect J275M from the Sensor.
5. Release the latches securing the Sensor to the Plate, and remove the Sensor.

Replacement

1. Position the Transport Entrance Sensor against the Sensor Plate, as shown in the figure.
2. Press the latches that are located on the rear of the Sensor into the cutouts in the Plate.
3. Reconnect J275M to the Sensor.
4. Reinstall the Sensor Plate onto the Transport, by closing slightly the Top Cover and sliding the Sensor, with the actuator pointing up, into position. Make sure you do not break the Sensor actuator while you are reinstalling the Sensor.
5. Use one screw to secure the Plate to the Transport.
6. Reinstall the Transport Entrance Sensor Cover by first inserting the two latches into the latch openings in the Transport, then pressing the Cover into place.
7. Close the Transport Cover.

RRP 6.95 IOT Paper Full Sensor (PL 23.2)



SER788XA

RRP 6.95 IOT Paper Full Sensor (PL 23.2)

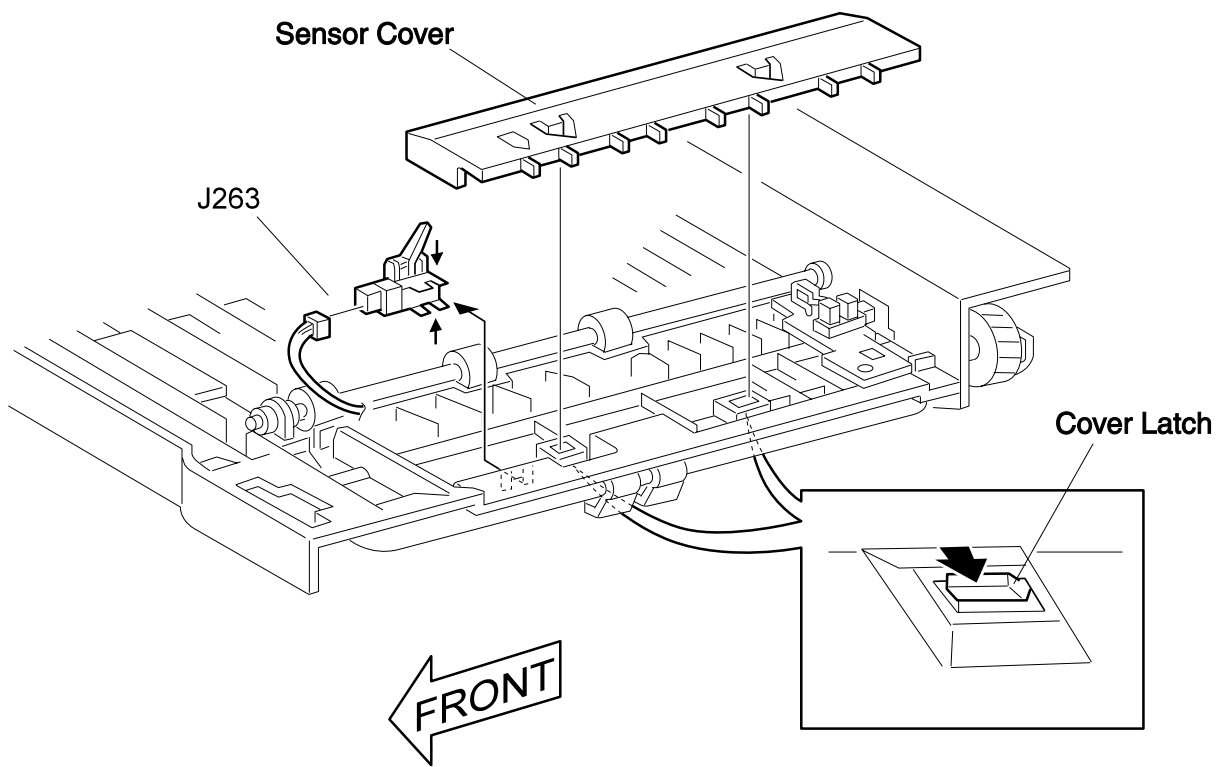
Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Open the Transport Cover.
3. Carefully pry up on the Transport Entrance Sensor Cover while you release the two latches securing the Cover to the Transport, and remove the Cover.
4. Disconnect J259 from the IOT Paper Full Sensor.
5. Reach under the Transport Assembly and release the latches that are securing the IOT Paper Full Sensor to the Transport, while you push down on the Sensor from the top and remove it from the Transport.

Replacement

1. Separate the HCS from the printer (RRP 6.1).
2. Open the Transport Cover.
3. Position the IOT Paper Full Sensor as shown in the figure, and insert it, latches first, into the Sensor cutout in the bottom of the Transport Assembly. The Sensor snaps into place.
4. Reconnect J259 to the Sensor.
5. Reinstall the IOT Paper Full Sensor Cover by first inserting the two latches into the latch openings in the Transport, then pressing the Cover into place.
6. Close the Transport Cover.
7. Reconnect the HCS to the printer (RRP 6.1).

RRP 6.96 Transport Exit Sensor (PL 23.2)



SER742XA

SER742XA

RRP 6.96 Transport Exit Sensor (PL 23.2)

Removal

1. Separate the HCS from the printer (RRP 6.1).
2. Open the Transport Cover.
3. Carefully pry up on the Transport Exit Sensor Cover while you release the two latches securing the Cover to the Transport, and remove the Cover.
4. Disconnect J263 from the Transport Exit Sensor.
5. Reach under the Transport and release the latches securing the Sensor the Transport while you pull the Sensor away from the Transport.

Replacement

1. Open the Transport Cover.
2. Position the Transport Exit Sensor as shown in the figure and insert it, latches first, into the Sensor cutout in the bottom of the Transport Assembly.
The Sensor snaps into place.
3. Reconnect J263 to the Sensor.
4. Reinstall the Transport Exit Sensor Cover by first inserting the two latches into the latch openings in the Transport, then pressing the Cover into place.
5. Close the Transport Cover.
6. Reconnect the HCS to the printer (RRP 6.1).

Blank Page

Section 7 - Locating P/J Connectors

Use the table and map in this section to locate specific P/J connectors within the High Capacity Stacker.

To find the location of a P/J:

1. Locate the P/J connector number in the first column of the table.
2. Locate the corresponding map and location number, such as M1-5, in the second column.
3. Go to the map (M1) number and locate item number (5).

P/J Location Table

P/J	Map & Number	Connected to...	Other end connected to...
2	M10-9	LVPS - OP11 PWB	P/J13 AC Power Inlet
250	M2-6	Stacker Top Paper Sensor	P/J264 Finisher PWB
251	M2-4	Stacker Top Half Sensor	P/J264 Finisher PWB
252	M2-3	Stacker Top Full Sensor	P/J264 Finisher PWB
253	M2-5	Stacker Top Upper Limit Sensor	P/J264 Finisher PWB
254	M2-1	Stacker Top Lower Limit Sensor	P/J264 Finisher PWB
255	M2-2, M11-12	Tray 1 Stacker Motor	P/J266 Finisher PWB
256M	M9-3	IN Gate Solenoid	P/J267 Finisher PWB
257	M8-3	Transport Motor	P/J267 Finisher PWB
258	M8-5, M11-4	Eject Motor	P/J267 Finisher PWB
259	M9-5	IOT Full Paper Sensor	P/J896 Finisher PWB
260	M9-1	Gate IN Interlock Sensor	P/J896 Finisher PWB
261	M9-2	Transport Interlock Sensor	P/J896 Finisher PWB
262	M9-8	P/J257M Transport Entrance Sensor P/J263 Transport Exit Sensor	P/J854 Finisher PWB
263	M9-4	Transport Exit Sensor	P/J854 Finisher PWB
264	M10-12, M11-18	Finisher PWB	P/J250 Stacker Top Paper Sensor P/J251 Stacker Top Half Sensor P/J252 Stacker Top Full Sensor P/J253 Stacker Top Upper Limit Sensor P/J254 Stacker Top Lower Limit Sensor

P/J Location Table continued

P/J	Map & Number	Connected to...	Other end connected to...
265	M10-5, M13-17	Finisher PWB	J812 MCU PWB
266	M10-11, M11-19	Finisher PWB	P/J852 Stacker Tray Safety Switch P/J255 Tray 1 Stacker Motor
267	M10-15, M11-3	Finisher PWB	P/J256 IN Gate Solenoid P/J257 Transport Motor P/J258 Eject Motor
268	M9-7	P/J259 IOT Full Paper Sensor P/J260 Gate In Interlock Sensor	P/J896 Finisher PWB
270	M7-6	Front Cover Interlock Switch	P/J897 Finisher PWB
271	M7-1	Top Cover Interlock Switch	P/J897 Finisher PWB
272 A/B	M7-3	Complier Cover Interlock Switch	P/J897 Finisher PWB
273	M1-2	Stacker Upper Limit Switch	P/J899 Finisher PWB
274	M1-3	Stacker Lower Limit Switch	P/J899 Finisher PWB
275M	M9-6	Transport Entrance Sensor	P/J854 Finisher PWB
279	M9-9	P/J261 Transport Interlock Sensor	P/J896 Finisher PWB
280	M6-9	P/J843 Compiler Paper Sensor	P/J893 Finisher PWB
285B	M11-20	P/J285A Middle Tray Safety Switch	P/J266 Finisher PWB
291	M10-10	Finisher PWB	P/J502 LVPS - OP11 PWB P/J505 LVPS - OP11 PWB
292	M11-11	P/J264 Finisher PWB	P/J250 Stacker Top Paper Sensor
293	M2-8	P/J250 Stacker Top Paper Sensor	P/J264 Finisher PWB
294	M11-10	P/J264 Finisher PWB	P/J251 Stacker Top Half Sensor P/J252 Stacker Top Full Sensor
295	M11-9	P/J264 Finisher PWB	P/J253 Stacker Top Upper Limit Sensor P/J254 Stacker Top Lower Limit Sensor
296	M11-13	P/J266 Finisher PWB	P/J852 Stacker Tray Safety Switch
297	M11-6	P/J267 Finisher PWB	P/J256 IN Gate Solenoid
298	M11-5	P/J267 Finisher PWB	P/J257 Transport Motor
299	M1-7	P/J855M Finisher Interlock Sensor	P/J893 Finisher PWB

P/J Location Table continued

P/J	Map & Number	Connected to...	Other end connected to...
502	M10-7	LVPS - OP11 PWB	P/J291 Finisher PWB P/J846 Interlocks
505	M10-8	LVPS - OP11 PWB	P/J291 Finisher PWB
612	M13-16	P/J265 Finisher PWB	Output Jack of the Base Engine & P/J 405 MCU PWB
830	M11-5	P/J894B Finisher PWB	P/J850 Stacker Low Upper Limit Sensor
831	M4-7	Stacker Lower Safety Sensor	P/J894B Finisher PWB
832	M6-3	Stack High Sensor	P/J896 Finisher PWB
833	M5-3	Stapler Front Corner Sensor	P/J896 Finisher PWB
834	M5-2	Stapler Front Straight Sensor	P/J895B Finisher PWB
835	M5-1	Stapler Rear Straight Sensor	P/J895B Finisher PWB
836	M7-2	Unload While Run Switch & Unload While Run LED	P/J895B Finisher PWB
837	M1-1	Stacker Tray ID Sensor	P/J893B Finisher PWB
838	M6-2	Complier Tray Exit Sensor	P/J896 Finisher PWB
839	M6-1	Tamper Home Sensor	P/J893 Finisher PWB
840	M6-6	End Wall Open Sensor	P/J893 Finisher PWB
841	M8-2	Eject Clamp Sensor	P/J893 Finisher PWB
842	M8-7	Set Clamp Sensor	P/J893 Finisher PWB
843	M6-5	Complier Paper Sensor	P/J893B Finisher PWB
844	M8-1	Stacker Offset Home Sensor	P/J893B Finisher PWB
845	M13-10	P/J897 Finisher PWB	P/J270 Front Cover Interlock Switch P/J271 Top Cover Interlock Switch P/J272 Complier Cover Interlock Switch
847	M13-12	P/J895B Finisher PWB	P/J833 Stapler Front Corner Sensor
848	M3-5	Stacker Mid Upper Limit Sensor	P/J894 Finisher PWB
849	M3-1	Stacker Mid Lower Limit Sensor	P/J894 Finisher PWB

P/J Location Table continued

P/J	Map & Number	Connected to...	Other end connected to...
850	M4-5	Stacker Low Upper Limit Sensor	P/J894B Finisher PWB
851	M4-1	Stacker Low Lower Limit Sensor	P/J894B Finisher PWB
852	M2-7	Stacker Tray Safety Switch	P/J266 Finisher PWB
854	M10-6, M13-18	Finisher PWB	P/J263 Transport Exit Sensor P/J275M Transport Entrance Sensor
855	M7-4	Compiler Cover Safety Switch	P/J899 Finisher PWB
855M	M1-5	Finisher Interlock Sensor	P/J893B Finisher PWB
856	M3-6	Stacker Mid Paper Sensor	P/J894 Finisher PWB
857	M3-4	Stacker Mid Half Sensor	P/J894 Finisher PWB
858	M3-3	Stacker Mid Full Sensor	P/J894 Finisher PWB
859	M4-6	Stacker Low Paper Sensor	P/J894B Finisher PWB
860	M4-4	Stacker Low Half Sensor	P/J894B Finisher PWB
861	M4-3	Stacker Low Full Sensor	P/J894B Finisher PWB
862	M5-4	Stapler	Finisher PWB
863	M8-8, M11-15	Eject Clamp Offset Motor	P/J898 Finisher PWB
864	M8-6, M11-14	Set Clamp Motor	P/J898 Finisher PWB
865	M1-4	Stacker Tray Elevator Motor	P/J899 Finisher PWB
866	M13-5	P/J896 Finisher PWB	P/J838 Complier Tray Exit Sensor
867	M6-7, M13-13	Tamper Motor	P/J897 Finisher PWB
868	M7-5	End Wall Open/Close Motor	P/J897 Finisher PWB
869	M6-4 M13-4	Complier Tray Up/Down Solenoid	P/J897 Finisher PWB
870	M3-2, M11-4	Stacker Mid Motor	P/J898 Finisher PWB
871	M4-2, M11-8	Stacker Low Motor	P/J898 Finisher PWB
872	M11-3	P/J894 Finisher PWB	P/J856 Stacker Mid Paper Sensor

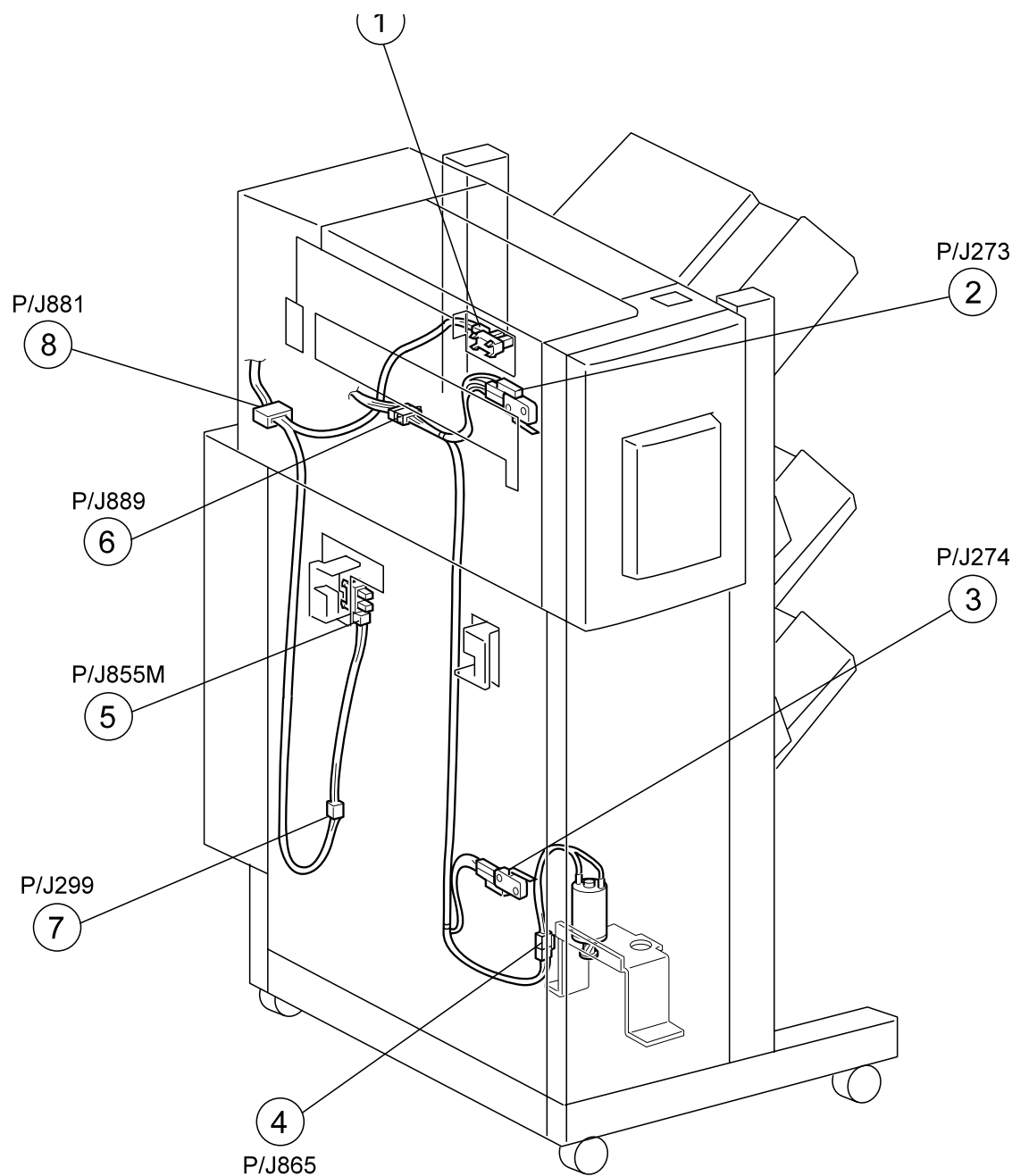
P/J Location Table continued

P/J	Map & Number	Connected to...	Other end connected to...
873	M11-2	P/J894 Finisher PWB	P/J857 Stacker Mid Half Sensor P/J858 Stacker Mid Full Sensor
874	M11-7	P/J894B Finisher PWB	P/J831 Stacker Lower Safety Sensor P/J859 Stacker Low Paper Sensor
875	M11-6	P/J894B Finisher PWB	P/J860 Stacker Low Half Sensor P/J861 Stacker Low Full Sensor
877	M13-9	P/J895B Finisher PWB	P/J834 Stapler Front Straight Sensor P/J835 Stapler Rear Straight Sensor
878	M13-6 M6-8	P/J895B Finisher PWB	P/J836 Unload While Run Switch & Unload While Run LED
880	M13-3	P/J896 Finisher PWB	P/J259 IOT Full Paper Sensor P/J260 Gate IN Interlock Sensor
881	M12-7, M1-8	P/J893 Finisher PWB	P/J855M Finisher Interlock Sensor P/J837 Stacker Tray ID Sensor
882	M13-11	P/J896 Finisher PWB	P/J261 Transport Interlock Sensor
883	M12-12, M6-10	P/J893 Finisher PWB	P/J839 Tamper Home Sensor P/J840 End Wall Open Sensor
884	M12-11	P/J893 Finisher PWB	P/J841 Eject Clamp Sensor P/J842 Set Clamp Sensor
885	M12-8	P/J893B Finisher PWB	P/J843 Compiler Paper Sensor P/J844 Stacker Offset Home Sensor
886	M8-4, M13-14	Stapler Move Motor	P/J897 Finisher PWB
887	M11-1	Tamper Motor	P/J897 Finisher PWB
888	M4-8	P/J859 Stacker Lower Paper Sensor P/J831 Stacker Lower Safety Sensor	P/J894 Finisher PWB
889	M1-6, M12-9	Compiler Up/Down Solenoid	P/J897 Finisher PWB
890	M13-7	P/J897 Finisher PWB	P/J868 End Wall Open/Close Motor P/J869 Compiler Tray Up/Down Solenoid
891	M12-10	P/J855 Compiler Cover Safety Switch	P/J899 Finisher PWB
892	M5-5, M13-8	P/J897 Finisher PWB	P/J862 Stapler

P/J Location Table continued

P/J	Map & Number	Connected to...	Other end connected to...
893	M10-2, M12-1	Finisher PWB	P/J837 Stacker Tray ID Sensor P/J839 Tamper Home Sensor P/J840 End Wall Open Sensor P/J841 Eject Clamp Sensor P/J842 Set Clamp Sensor P/J843 Compiler Paper Sensor P/J844 Stacker Offset Home Sensor P/J855 Finisher Interlock Sensor
894	M10-13, M11-17	Finisher PWB	P/J831 Stacker Lower Safety Switch P/J848 Stacker Mid Upper Limit Sensor P/J849 Stacker Mid Lower Limit Sensor P/J850 Stacker Low Upper Limit Sensor P/J851 Stacker Low Lower Limit Sensor P/J856 Stacker Mid Paper Sensor P/J857 Stacker Mid Half Sensor P/J858 Stacker Mid Full Sensor P/J859 Stacker Low Paper Sensor P/J860 Stacker Low Half Sensor P/J861 Stacker Low Full Sensor
895	M3-7	P/J856 Stacker Mid Paper Sensor	P/J894 Finisher PWB
896	M10-4, M13-1	Finisher PWB	P/J259 IOT Full Paper Sensor P/J260 IN Gate Interlock Sensor P/J261 Transport Interlock Sensor P/J832 Stack High Sensor P/J838 Compiler Tray Exit Sensor
897	M10-3, M13-2	Finisher PWB	P/J862 Stapler P/J868 End Wall Open/Close Motor P/J869 Compiler Tray Up/Down Solenoid P/J886 Stapler Move Motor P/J887 Tamper Motor
898	M10-14, M11-16	Finisher PWB	P/J863 Eject Clamp Offset Motor P/J864 Set Clamp Motor P/J870 Stacker Mid Motor P/J871 Stacker Low Motor
899	M10-1, M11-2	Finisher PWB	P/J253 Stacker Upper Limit Switch P/J254 Stacker Lower Limit Switch P/J855 Compiler cover Safety Switch P/J865 Stacker Tray Elevator Motor

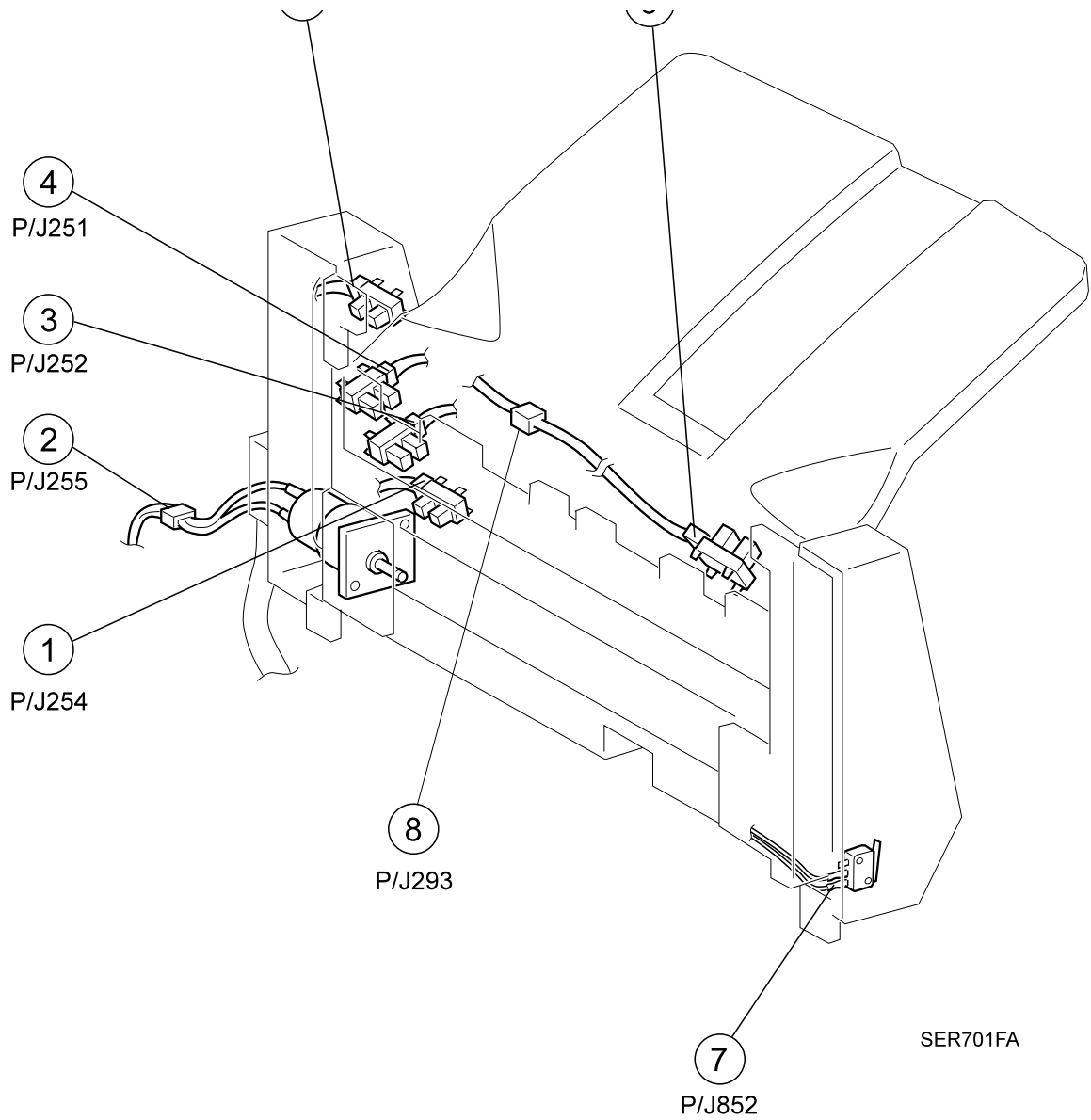
P/J Location Map 1



SER700FB

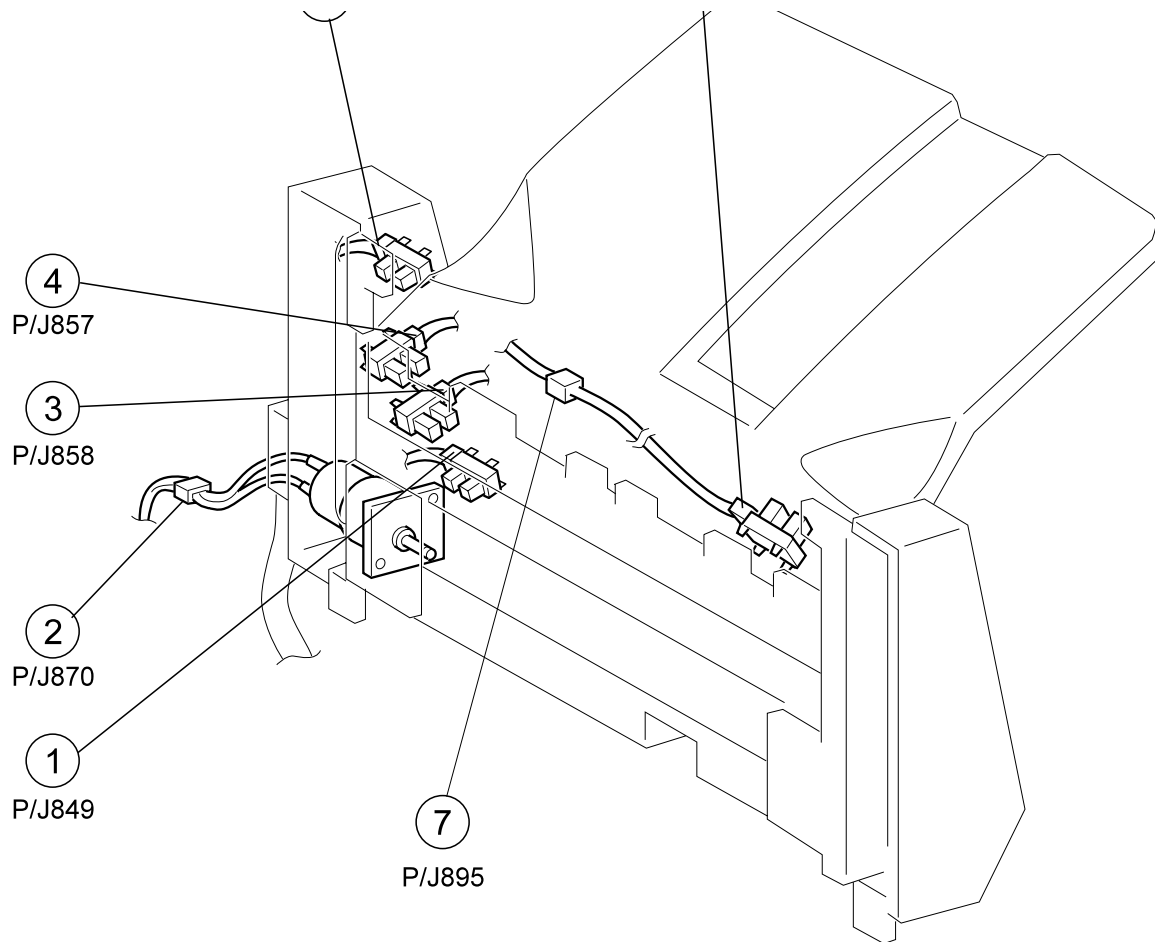
SER700FB

P/J Location Map 2



SER701FA

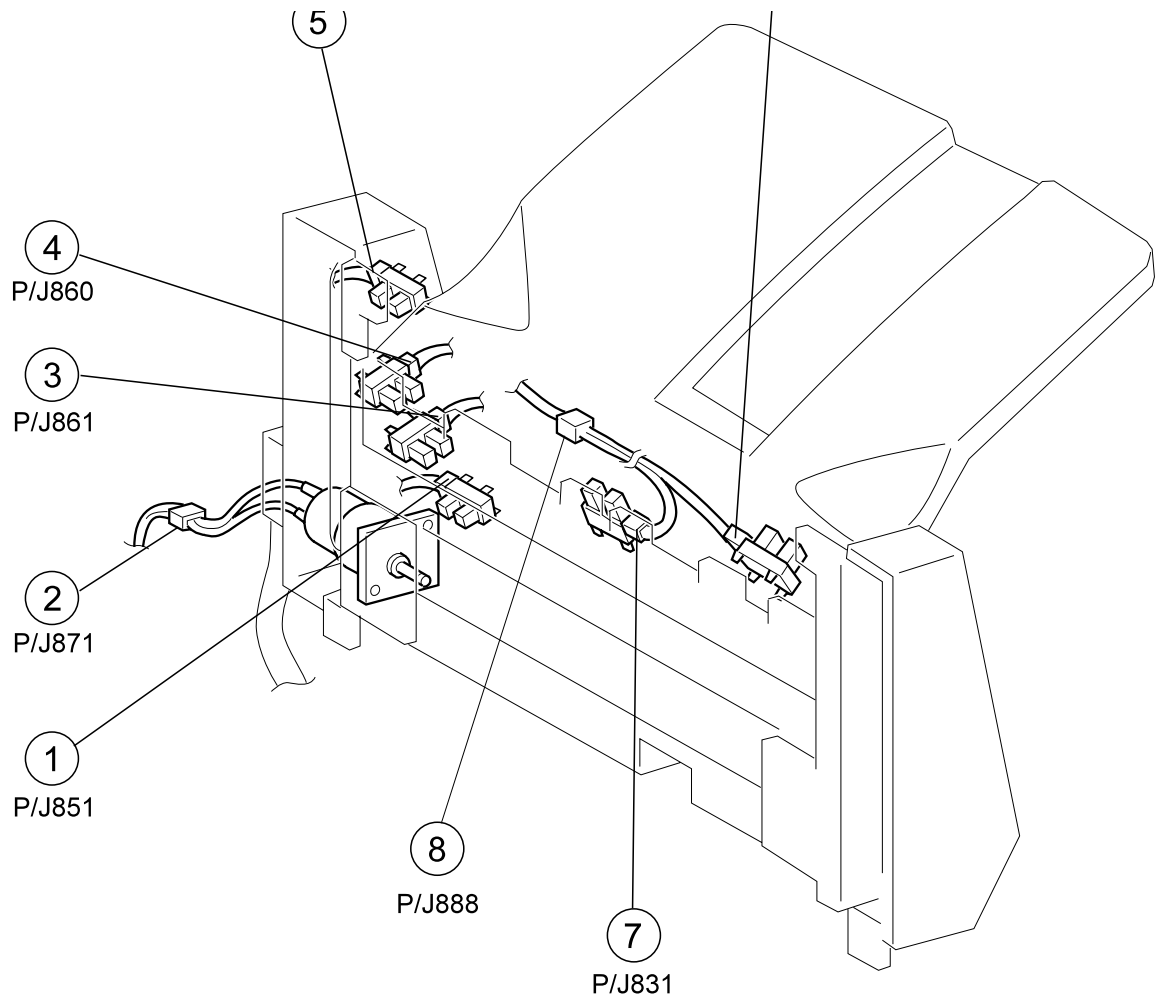
P/J Location Map 3



SER702FA

SER702FA

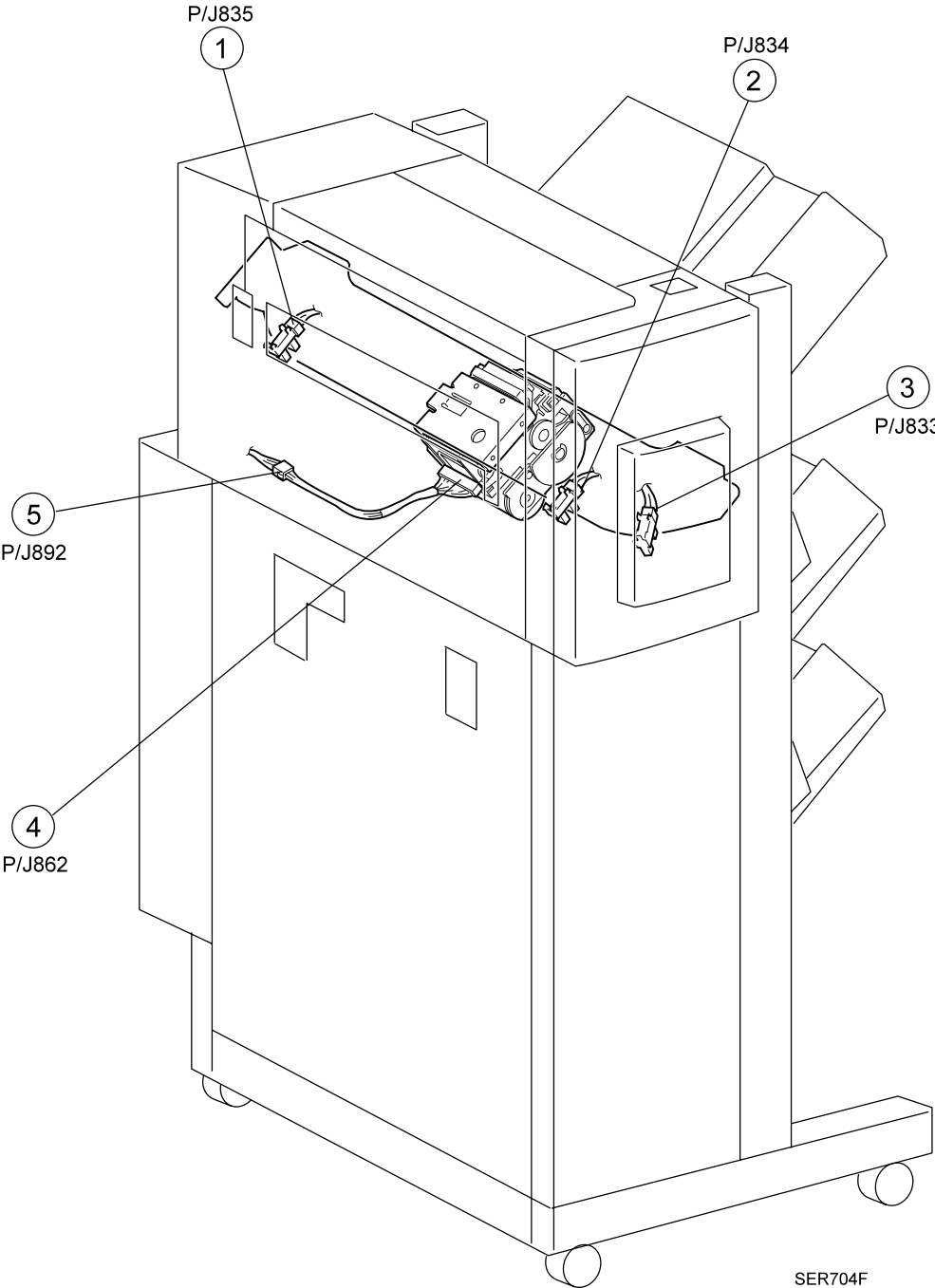
P/J Location Map 4



SER703FA

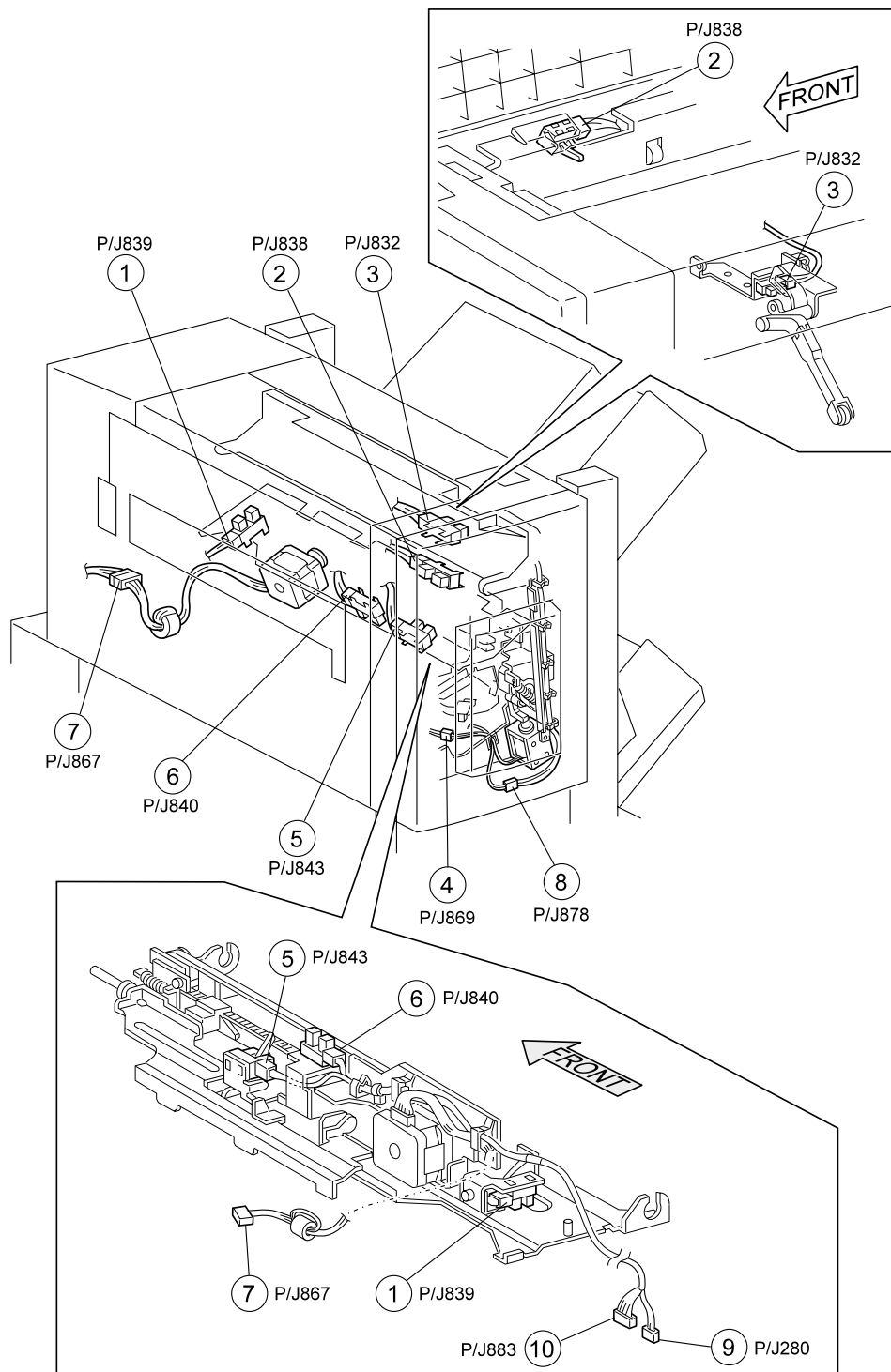
SER703FA

P/J Location Map 5



SER704F

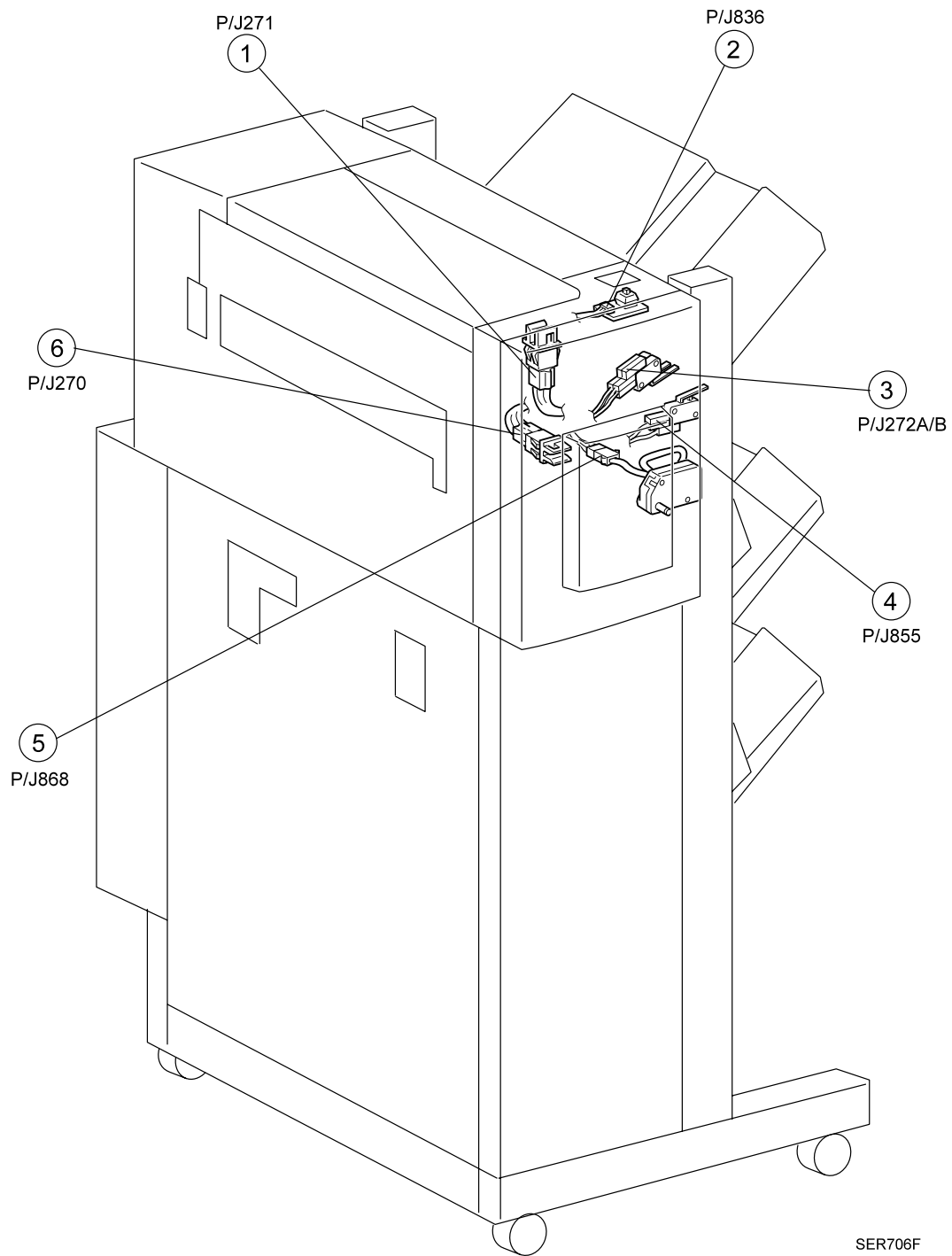
P/J Location Map 6



SER705FB

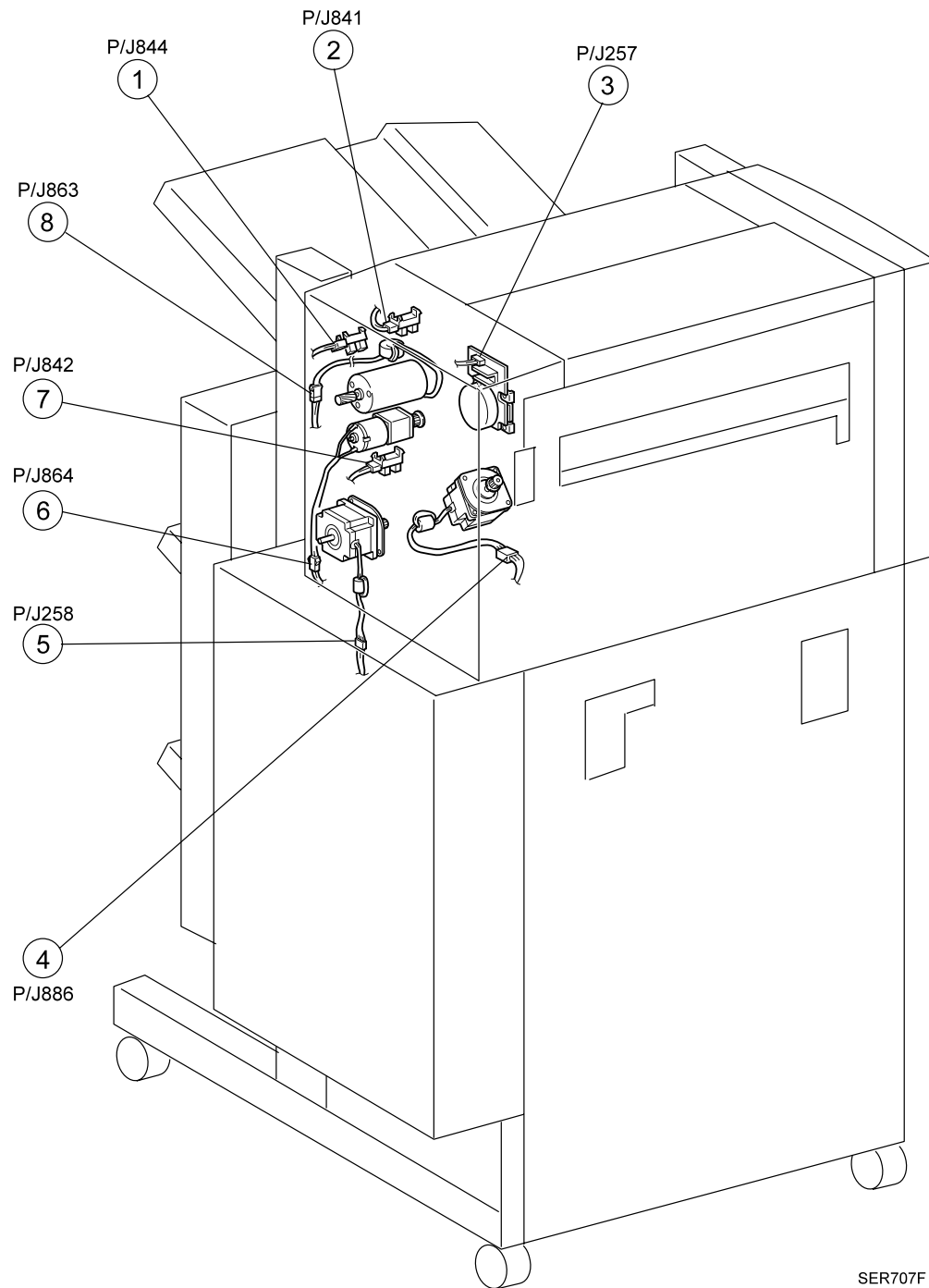
SER705FB

P/J Location Map 7



SER706F

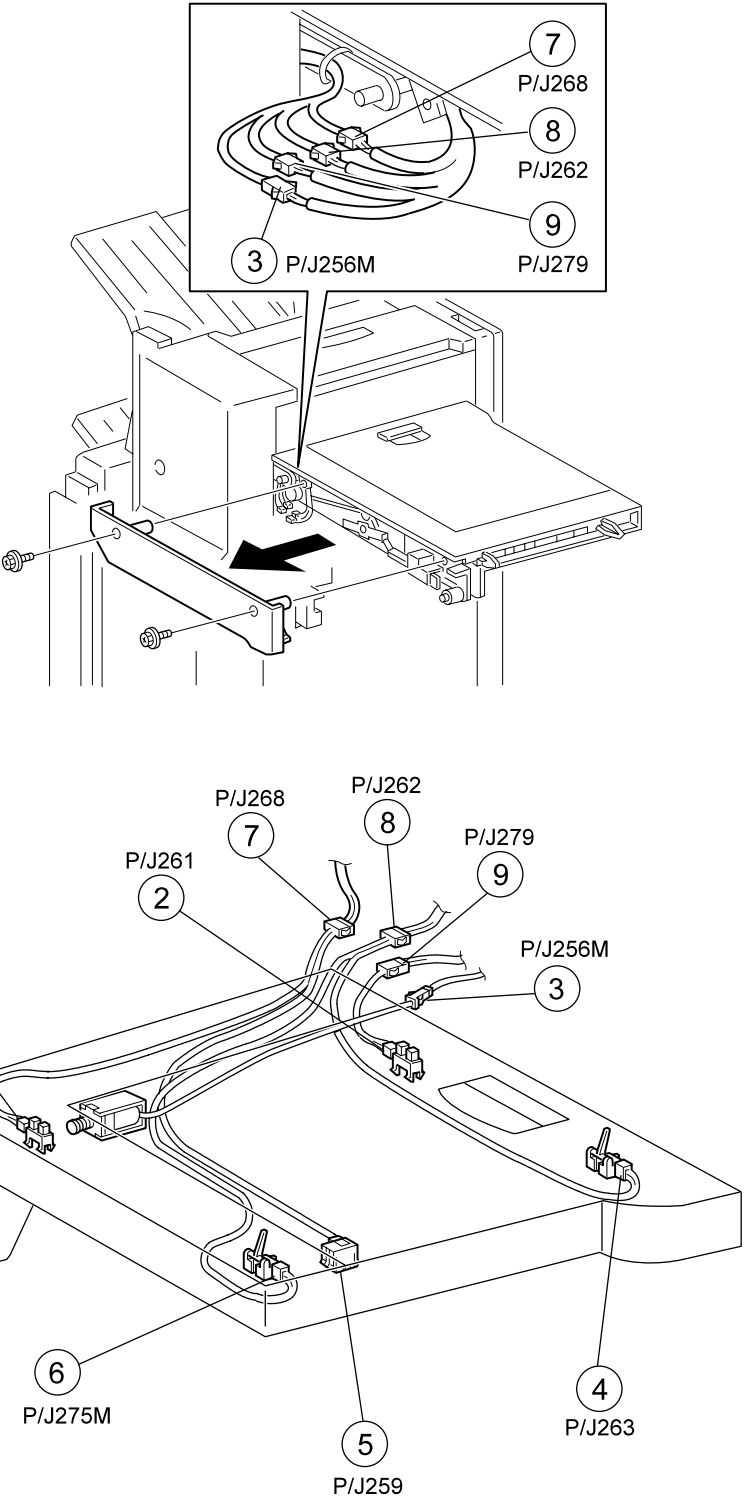
P/J Location Map 8



SER707F

SER707F

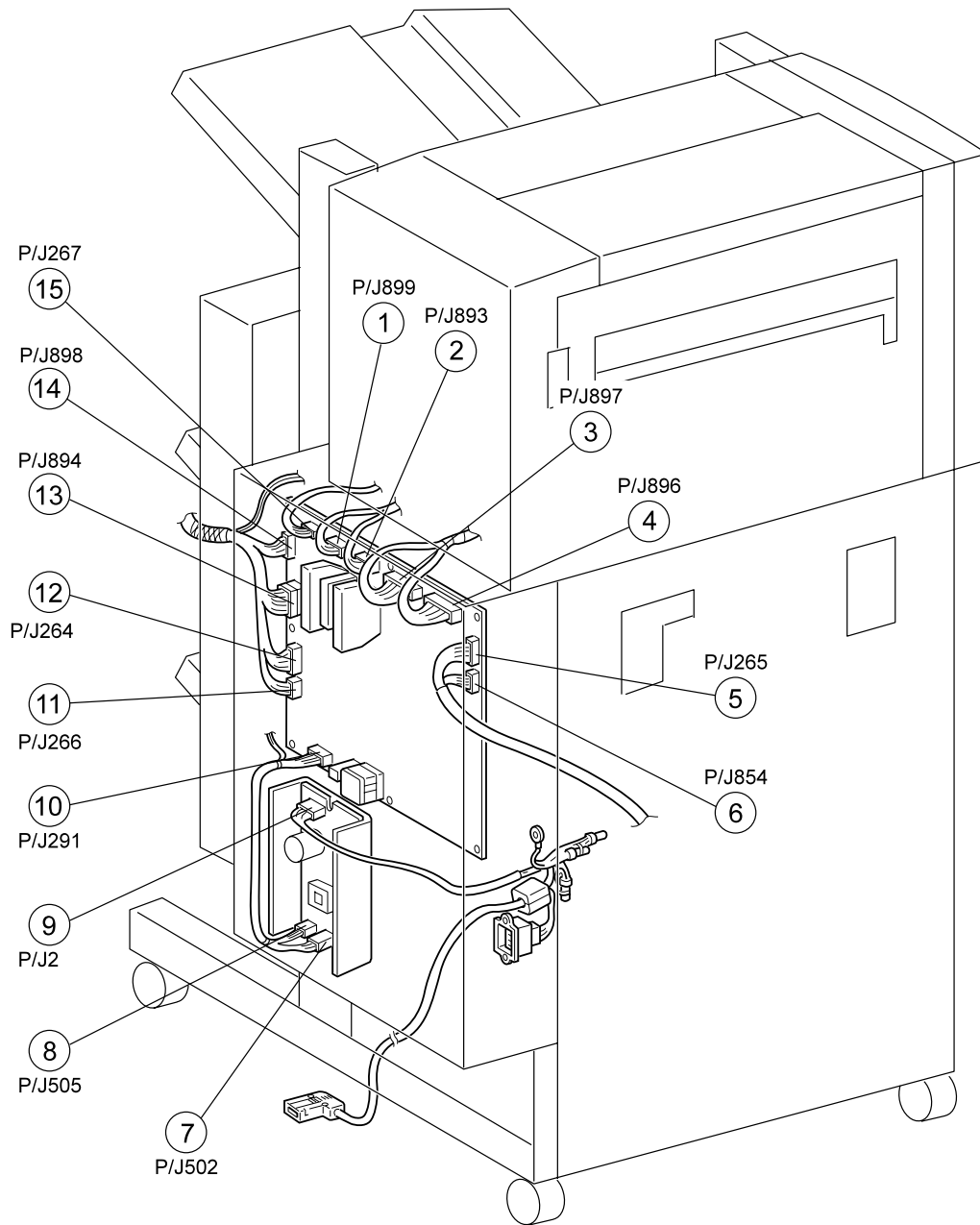
P/J Location Map 9



SER708FB

SER708FB

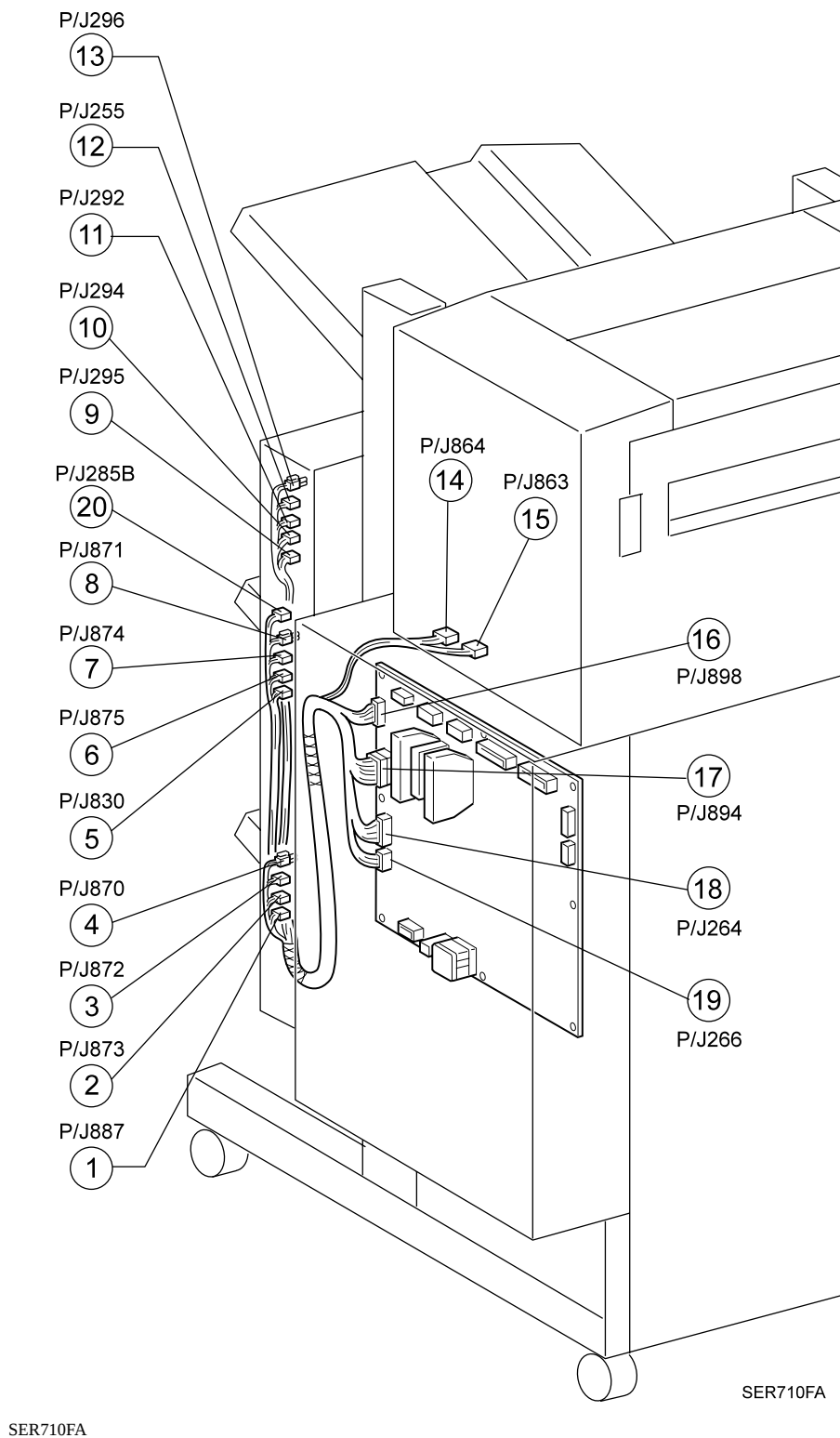
P/J Location Map 10



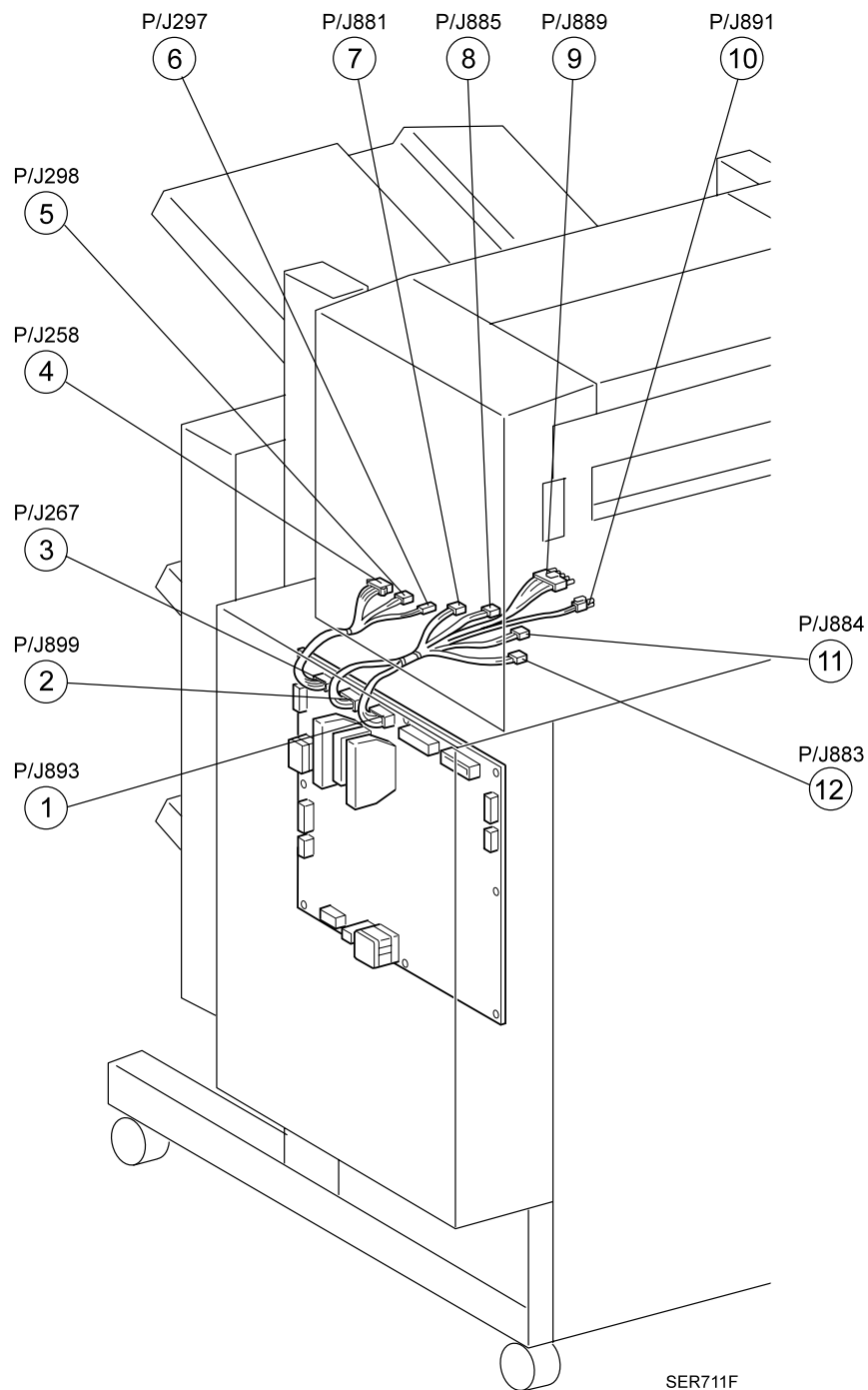
SER709FA

SER709FA

P/J Location Map 11

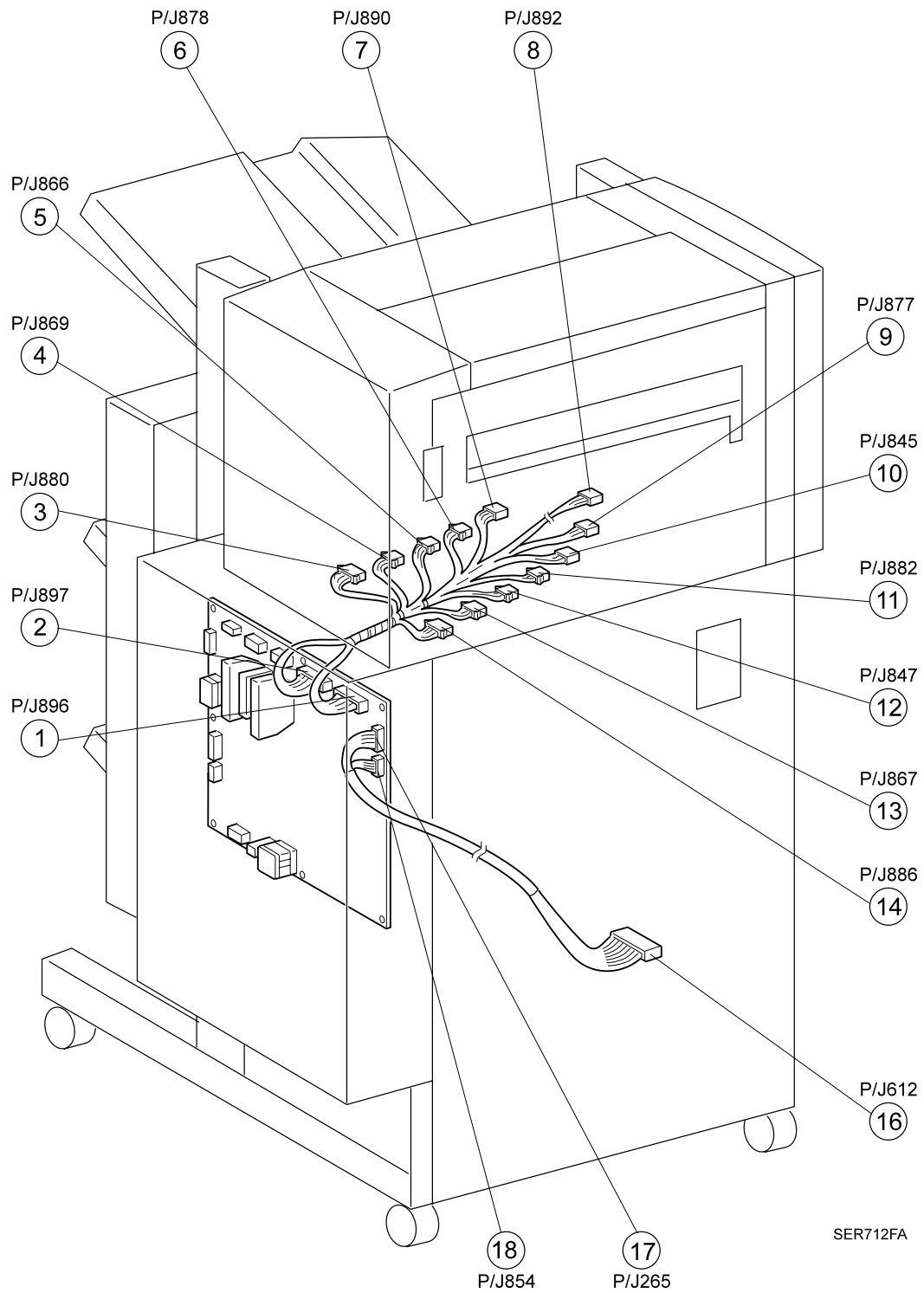


P/J Location Map 12



SER711F

P/J Location Map 13



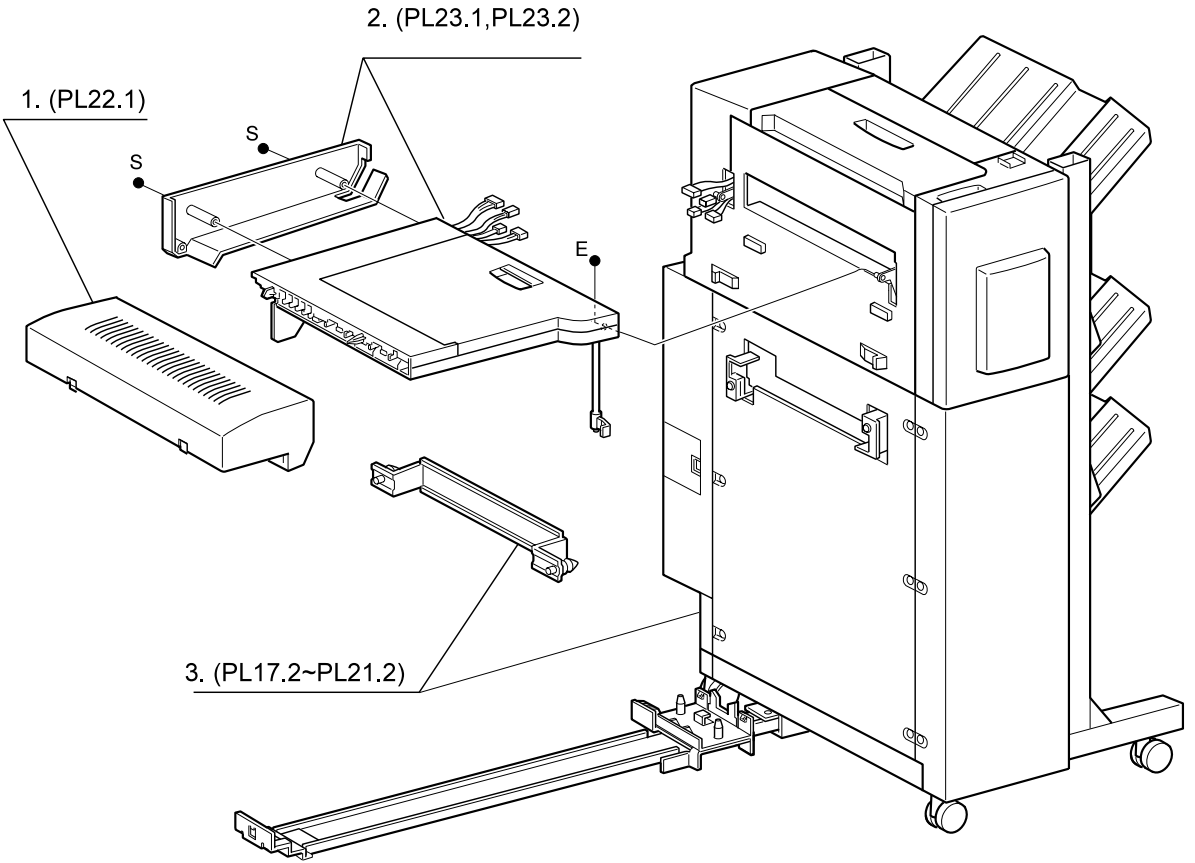
SER712FA

Section 8 - PL17 ~ PL23 High Capacity Stacker Parts List

Using the Parts List

1. The numbers shown in each illustration correspond to the parts list number for that illustration.
2. Throughout this manual, parts are identified by the prefix “PL”, followed by a number, a decimal point, and another number. For example, PL3.12 means the part is item 12 of parts list 3.
3. The capital letters “C”, “E”, “KL”, and “S” shown in an illustration stand for C-ring, E-ring, Clamp, and Screw, respectively.
4. A shaded triangle in an illustration indicates the item is part of an assembly.
5. The notation “**with X~Y**” following a part name indicates an assembly that is made up of components X through Y. For example, “1 (with 2~4)” means part 1 consists of part 2, part 3, and part 4.
6. The symbol \$ following a part name indicates the part is an FX Recommended Part and is constantly stocked and readily available. Other parts may be stocked according to the needs of each individual OEM client.
7. An asterisk * following a part name indicates the page contains a note about this part.
8. The notation “**J1<>J2 and P2**” is attached to a wire harness. It indicates that connector jack 1 is attached to one end of the wire harness and connector jack 2 is attached to the other end that is plugged into plug 2.
9. An RRP number appears at the end of a part line if the technical manual contains a removal and replacement procedure for that part or module.

PL17.1 HCS Transport



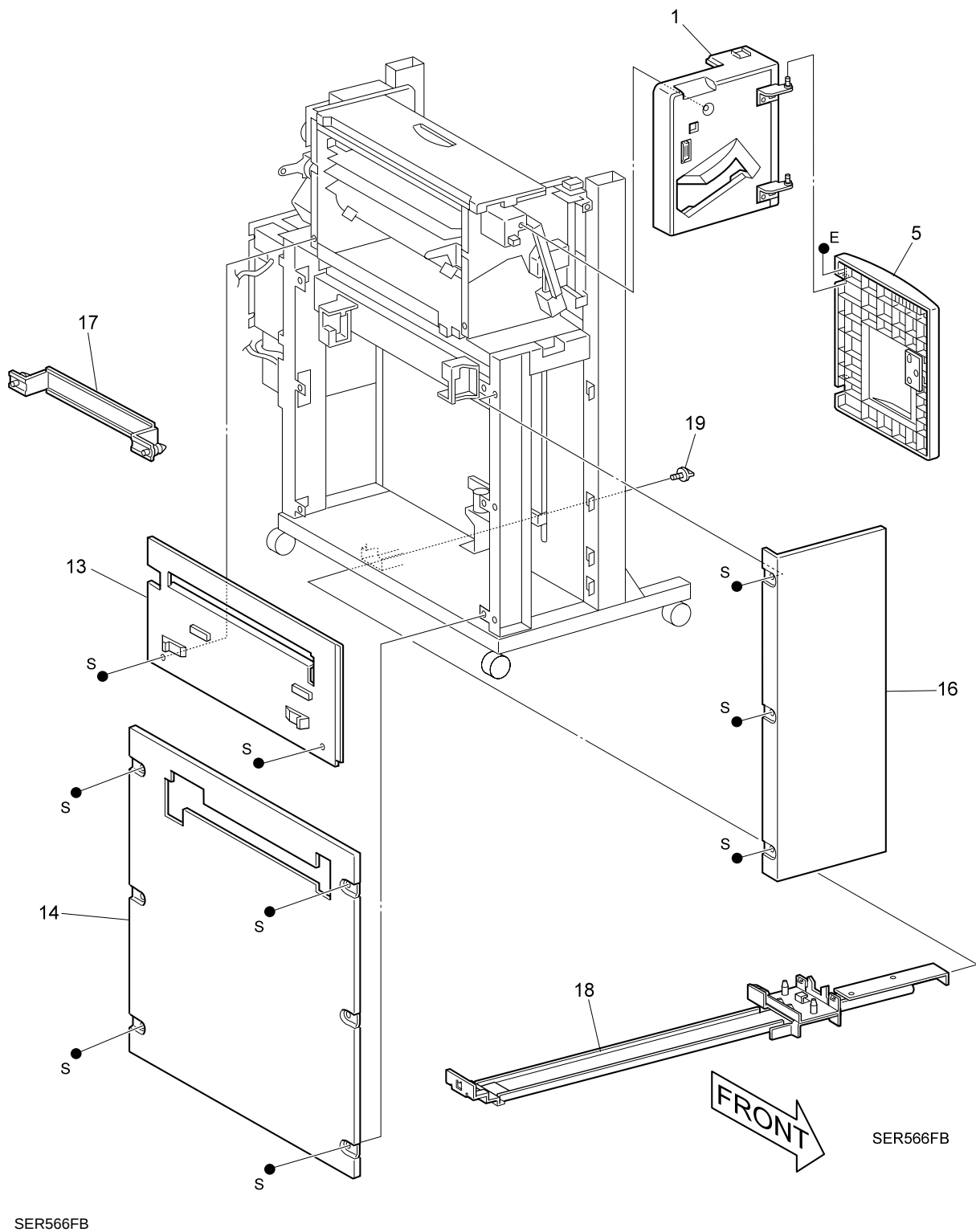
SER565FC

SER565FC

PL17.1 HCS Transport

1. REFERENCE ONLY (Exploded on PL22.1)
2. REFERENCE ONLY (Exploded on PL23.1, PL23.2)
3. REFERENCE ONLY (Exploded on PL17.2~PL21.2)

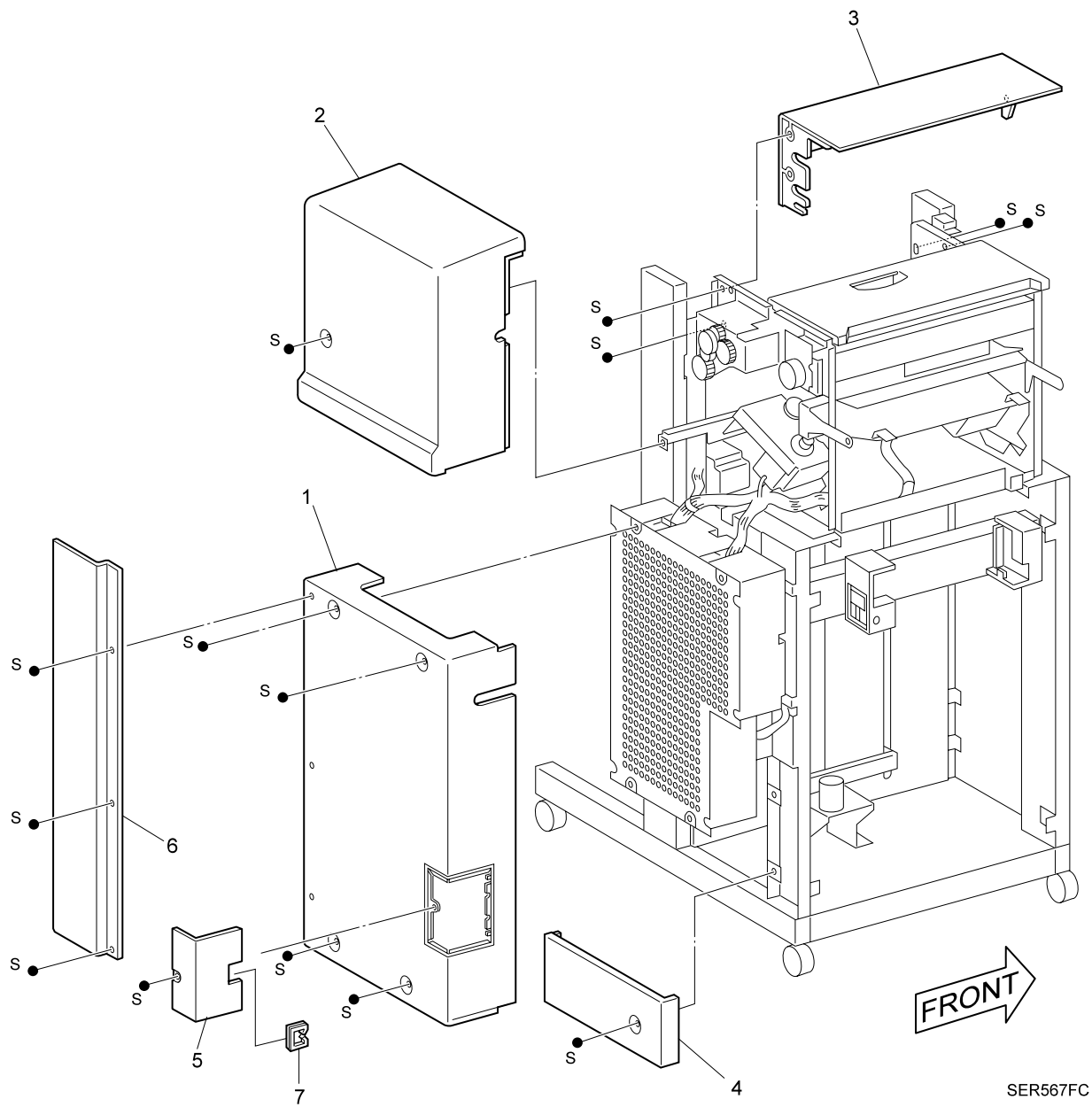
PL17.2 HCS Covers Front



PL17.2 HCS Covers Front

1. COVER FRONT INNER ASSEMBLY (with 2, 3, 4)..... P/N 865048K59860
2. N/A
3. N/A
4. N/A
5. COVER FRONT ASSEMBLY P/N 865048K58610
6. N/A
7. N/A
8. N/A
9. N/A
10. N/A
11. N/A
12. N/A
13. COVER L/H P/N 865048E45281
14. COVER LOW L/H P/N 865048E45960
15. N/A
16. COVER FRONT LOW P/N 865048E45940
17. BRACKET ASSEMBLY EMI..... N/A
18. RAIL ASSEMBLY DOCKING P/N 865001K55720
19. KNOB ASSEMBLY N/A

PL17.3 HCS Covers Rear



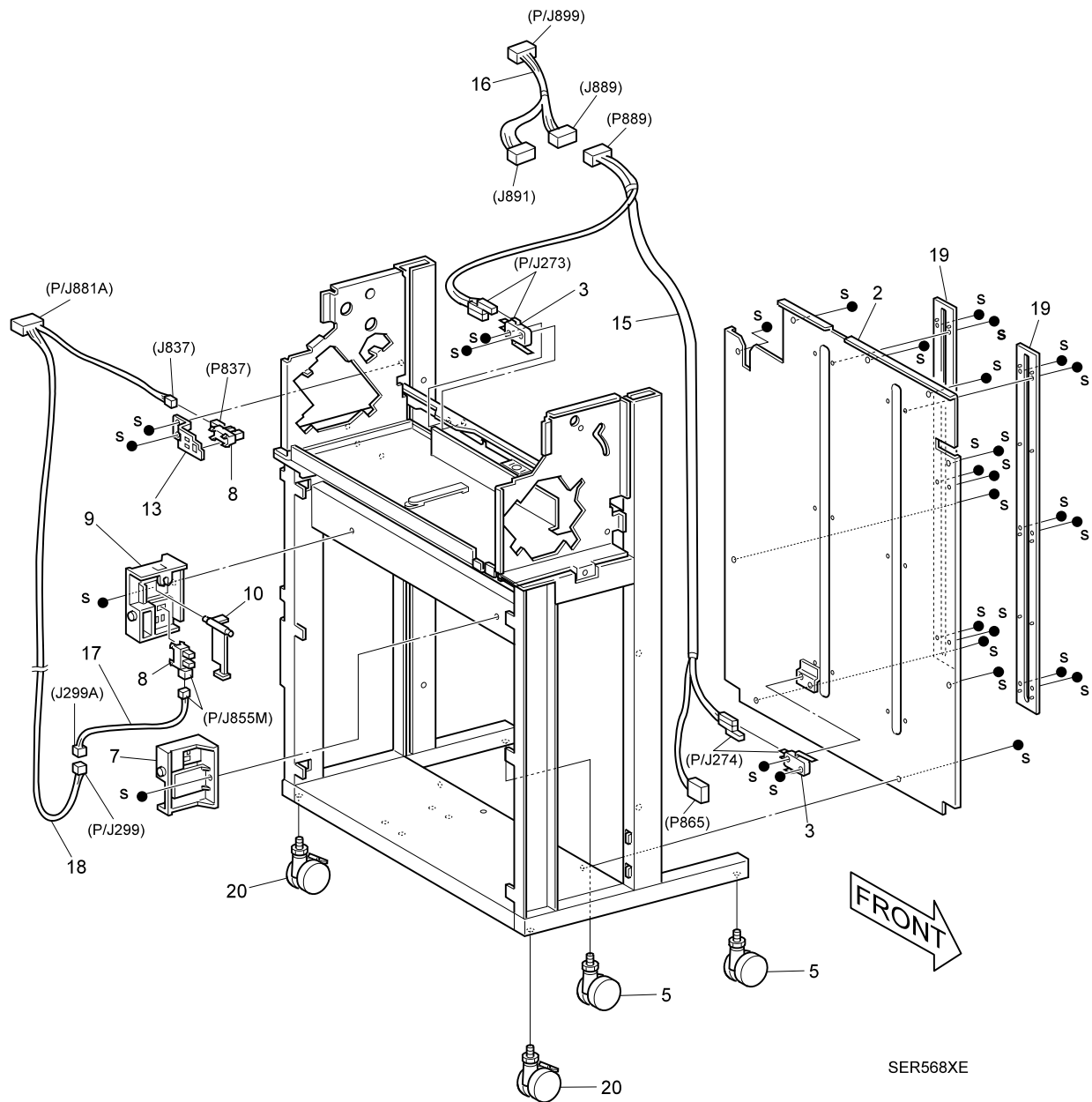
SER567FC

SER567FC

PL17.3 HCS Covers Rear

1. COVER ASSEMBLY PWB	P/N 865048K59390
2. COVER REAR	P/N 865048K59870
3. COVER EJECT	P/N 865048E45930
4. COVER ADD	P/N 865048E45950
5. COVER CONNECTOR.....	N/A
6. COVER HARNESS.....	P/N 865048E4592X
7. CLAMP.....	N/A

PL17.4 Rack

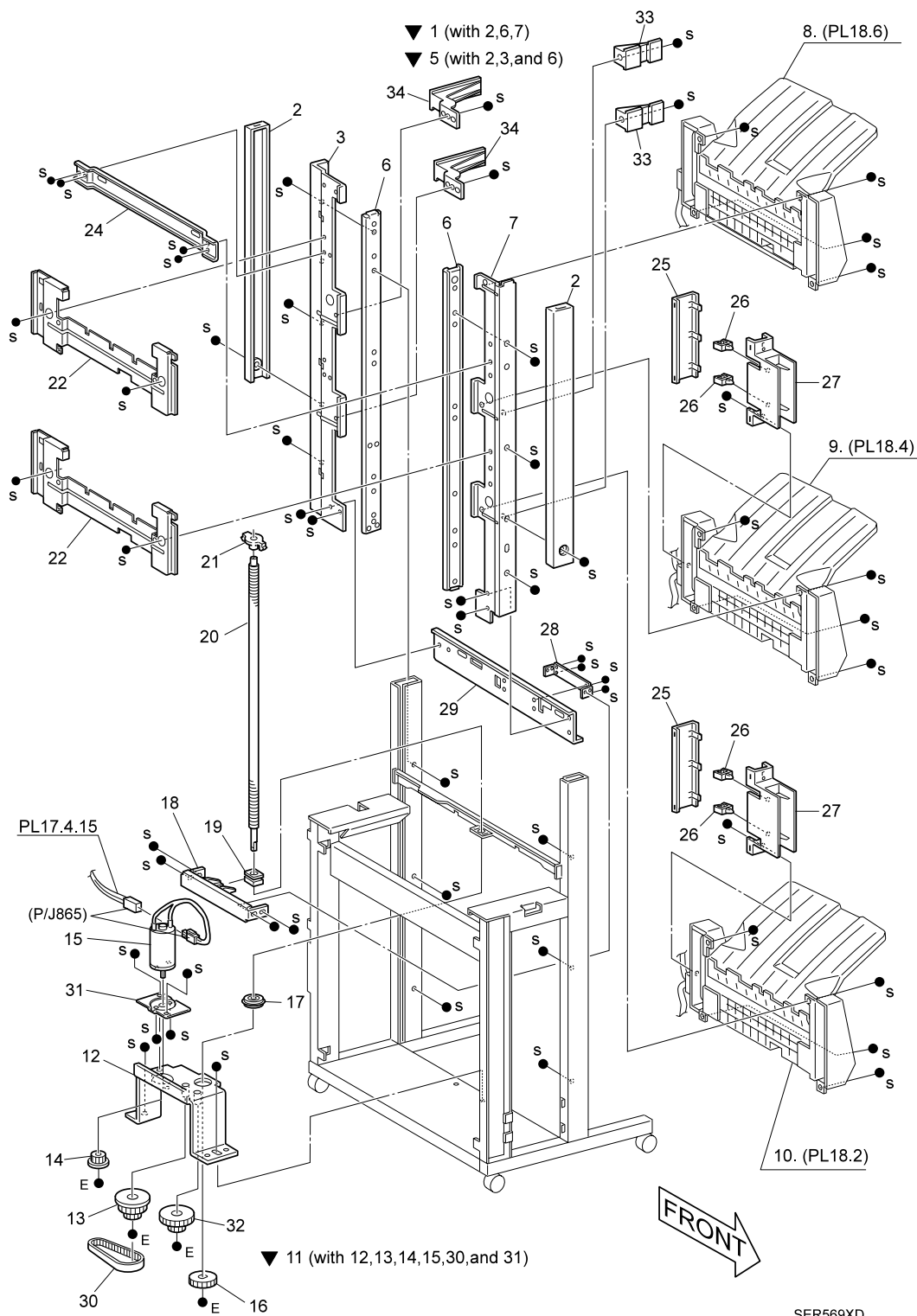


SER568XE

PL17.4 Rack

1. N/A
2. COVER ASSEMBLY RACK R/H P/N 865048K58551
3. SWITCH MICRO P/N 865110E94510
4. N/A
5. CASTER P/N 865017K92040
6. N/A
7. SUPPORT DOCKING..... P/N 865049E78540
8. SENSOR P/N 865130E82540
9. SUPPORT DOCKING.....
10. ACTUATOR P/N 865120E12390
11. N/A
12. HARNESS N/A
13. BRACKET SENSOR N/A
14. N/A
15. HARNESS ASSEMBLY TRAY LIMIT..... P/N 865162K31730
16. HARNESS ASSEMBLY DC MAIN COM-2..... N/A
17. HARNESS ASSEMBLY F-INTERLOCK SENSOR..... N/A
18. HARNESS ASSEMBLY TRAY ID..... N/A
19. PLATE SLIT N/A
20. CASTER LOCK N/A

PL18.1 Rails and Trays



PL18.1 Rails and Trays

1. RAIL ASSEMBLY FRONT (with 2, 6, 7)	N/A
2. COVER RAIL.....	N/A
3. BRACKET TRAY REAR.....	N/A
4. N/A	
5. RAIL ASSEMBLY REAR (with 2, 3, & 6).....	N/A
6. RAIL ASSEMBLY	N/A
7. BRACKET TRAY FRONT	N/A
8. REFERENCE ONLY (Exploded on PL18.6)	N/A
9. REFERENCE ONLY (Exploded on PL18.4)	N/A
10. REFERENCE ONLY (Exploded on PL18.2)	N/A
11. MOTOR ASSEMBLY TRAY CHANGE (with 12 ~ 15, 30 and 31)	P/N 865127K20850
12. BRACKET MOTOR ASSEMBLY CHANGE.....	N/A
13. GEAR 50Z/34T.....	N/A
14. PULLEY-14T	N/A
15. MOTOR ASSEMBLY - DC	N/A
16. GEAR DRIVE 37Z	P/N 865007E45750
17. BEARING.....	P/N 865413W08950
18. BRACKET DRIVE ELEV	N/A
19. NUT LIFT	P/N 865027E91800
20. SHAFT DRIVE	N/A
21. BEARING.....	P/N 865013E93460
22. COVER GUIDE TRAY	N/A
23. N/A	
24. PLATE TIE ELEV UP	N/A
25. GUIDE-HARNESS UP	N/A
26. CLAMP LOCKING.....	N/A
27. GUIDE-HARNESS BOTTOM.....	N/A
28. BRACKET HINGE ELEV	N/A
29. PLATE-TIE ELEV LOW.....	N/A
30. BELT	N/A
31. PLATE MOTOR CHANGE	N/A
32. GEAR 24Z-42Z	N/A
33. GUARD-FRONT.....	N/A
34. GUARD-REAR	N/A

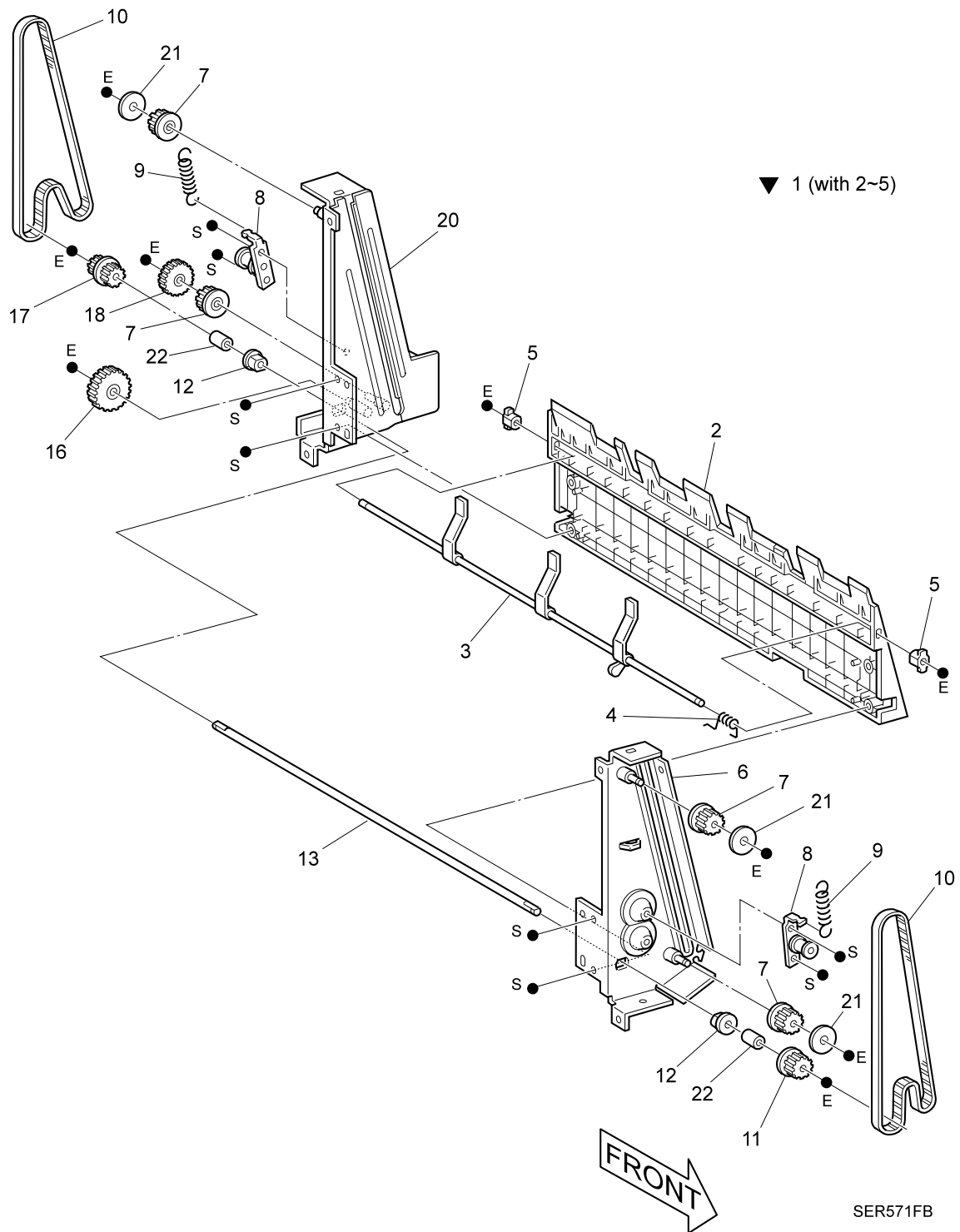
HCS-306



PL18.2 Lower Tray

1. TRAY ASSEMBLY LOWER (with 2~30 and 33~36).....	P/N 865050K30220
2. TRAY STACKER	N/A
3. ACTUATOR NO PAPER	P/N 865120E12360
4. SPRING TORSION	P/N 865809E02941
5. SENSOR PI, DH.....	N/A
6. BRACKET NO PAPER	N/A
7. N/A	
8. N/A	
9. SENSOR PI, DL	N/A
10. CARRIAGE ASSEMBLY (with 11, 12)	N/A
11. CARRIAGE	N/A
12. ROLL ELEV	N/A
13. COVER ELEV FRONT.....	N/A
14. REFERENCE ONLY (Exploded on PL18.3)	N/A
15. CLAMP	P/N 865019E31680
16. ACTUATOR LIMIT	N/A
17. MOTOR ASSEMBLY ELEV (with 18~20).....	P/N 865127K20860
18. MOTOR ASSEMBLY -DC	N/A
19. BRACKET MOTOR ELEV	N/A
20. GEAR 20Z	N/A
21. N/A	
22. N/A	
23. N/A	
24. N/A	
25. SENSOR ASSEMBLY (with 5, 9, 27, and 34).....	N/A
26. N/A	
27. BRACKET SENSOR ELEV	N/A
28. N/A	
29. COVER ELEV REAR	N/A
30. COVER HARNESS REAR.....	N/A
31. N/A	
32. N/A	
98. HARNESSKIT ELEV COVER REAR (29 and 30).....	P/N 865600K61870
99. KIT ELEV ROLLER (Qty 4 of item 12)	P/N 865600K61860

PL18.3 Lower Tray Frame



SER571FB

PL18.3 Lower Tray Frame

1. GUIDE ASSEMBLY TRAY LOW (with 2~5).....	P/N 865038K83320
2. GUIDE TRAY.....	N/A
3. STOPPER ASSEMBLY PAPER	P/N 865809E02950
4. SPRING TORSION	N/A
5. BEARING.....	N/A
6. FRAME ASSEMBLY ELEV FL.....	N/A
7. PULLEY IDL 20T	N/A
8. PLATE TENSION	N/A
9. SPRING EXIT	N/A
10. BELT	P/N 865423W57352
11. PULLEY DRV 18T.....	N/A
12. BEARING.....	N/A
13. SHAFT ELEV	N/A
14. N/A	
15. N/A	
16. GEAR SPUR 32Z	N/A
17. GEAR PULLEY 14Z/18T	N/A
18. GEAR SPUR 20Z	N/A
19. N/A	
20. FRAME ASSEMBLY ELEV REAR.....	N/A
21. FLANGE-PULLEY, 6.....	N/A

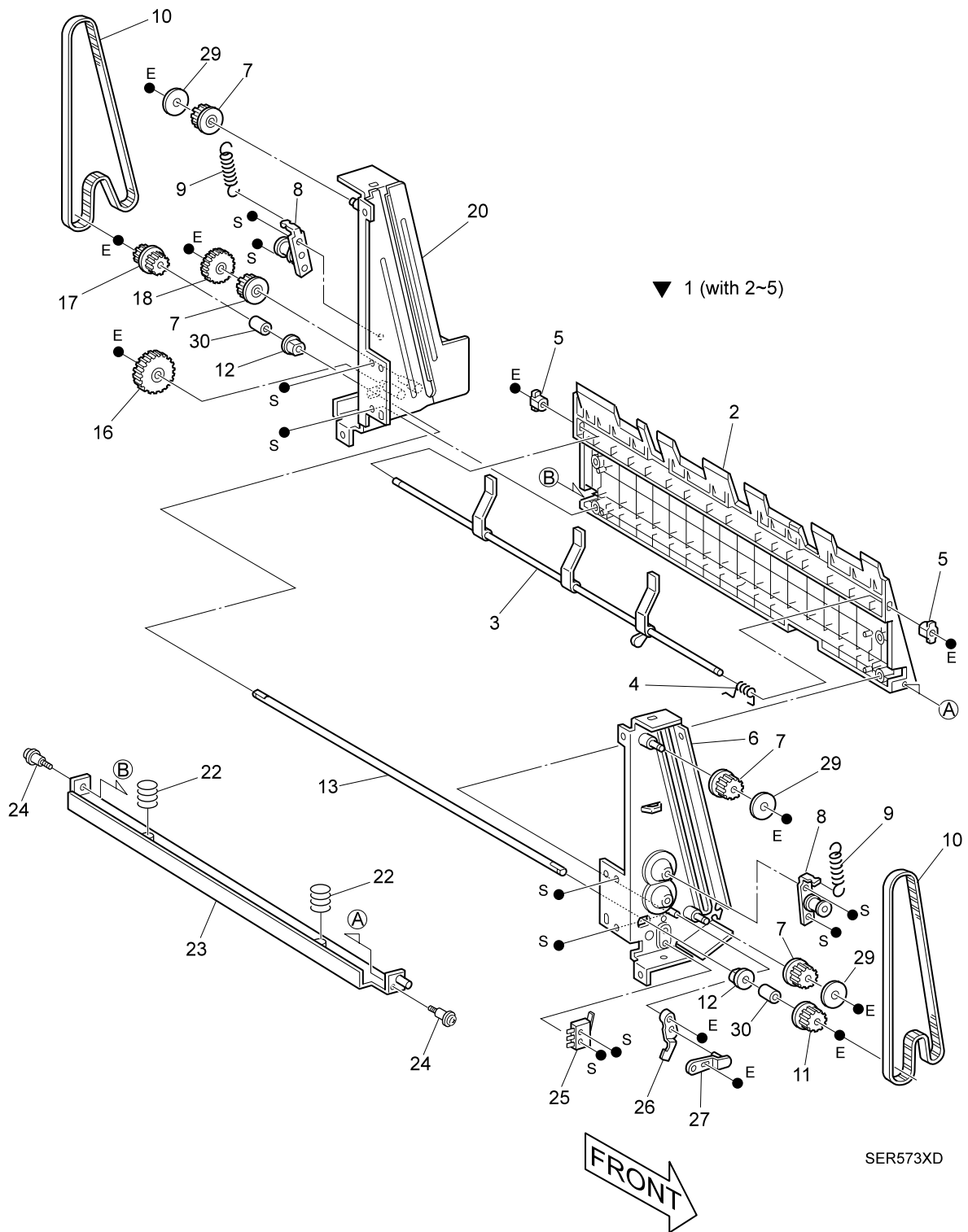
HCS-310



PL18.4 Middle Tray

1. TRAY ASSEMBLY MIDDLE (with 2~6, 10~20, 25~27, 29, 30, and 33~36)	P/N 865050K30230
2. TRAY STACKER	N/A
3. ACTUATOR NO PAPER	N/A
4. SPRING TORSION	N/A
5. SENSOR PI, DH.....	N/A
6. BRACKET NO PAPER.....	N/A
7. N/A	
8. N/A	
9. N/A	
10. CARRIAGE ASSEMBLY (with 11, 12).....	N/A
11. CARRIAGE	N/A
12. ROLL ELEV	N/A
13. COVER ELEV FRONT.....	N/A
14. REFERENCE ONLY (Exploded on PL18.5)	
15. CLAMP.....	N/A
16. ACTUATOR LIMIT	N/A
17. MOTOR ASSEMBLY ELEV (with 18~20).....	N/A
18. MOTOR ASSEMBLY -DC	N/A
19. BRACKET MOTOR ELEV	N/A
20. GEAR 20Z	N/A
21. N/A	
22. N/A	
23. N/A	
24. N/A	
25. SENSOR ASSEMBLY ELEV (with 5, 26, 27, and 34).....	N/A
26. SENSOR PI, DL	N/A
27. BRACKET SENSOR ELEV	N/A
28. N/A	
29. COVER ELEV REAR	N/A
30. COVER HARNESS REAR.....	N/A
31. N/A	
32. N/A	
33. N/A	
34. GUIDE ACTUATOR.....	N/A
35. HARNESS ASSEMBLY MID SENSOR	N/A
36. HARNESS ASSEMBLY MID PAPER COM	N/A
98. KIT ELEV COVER REAR (29 and 30).....	N/A
99. KIT ELEV ROLLER (Qty 4 of item 12).....	N/A

PL18.5 Middle Tray Frame



SER573XD

PL18.5 Middle Tray Frame

1. GUIDE ASSEMBLY TRAY MIDDLE (with 2~5)	N/A
2. GUIDE TRAY.....	N/A
3. STOPPER ASSEMBLY PAPER	N/A
4. SPRING TORSION	N/A
5. BEARING.....	N/A
6. FRAME ASSEMBLY ELEV FL.....	N/A
7. PULLEY IDL 20T	N/A
8. PLATE TENSION	N/A
9. SPRING EXIT	N/A
10. BELT	N/A
11. PULLEY DRV 18T.....	N/A
12. BEARING.....	N/A
13. SHAFT ELEV	N/A
14. N/A	
15. N/A	
16. GEAR SPUR 32Z	N/A
17. GEAR PULLEY 14Z/18T	N/A
18. GEAR SPUR 20Z	N/A
19. N/A	
20. FRAME ASSEMBLY ELEV REAR.....	N/A
21. N/A	
22. SPRING EXIT	N/A
23. PLATE SHAFT	N/A
24. SCREW.....	N/A
25. SWITCH MICRO	N/A
26. LINK-IDL	N/A
27. LINK-PUSH	N/A
28. N/A	
29. FLANGE-PULLEY, 6.....	N/A

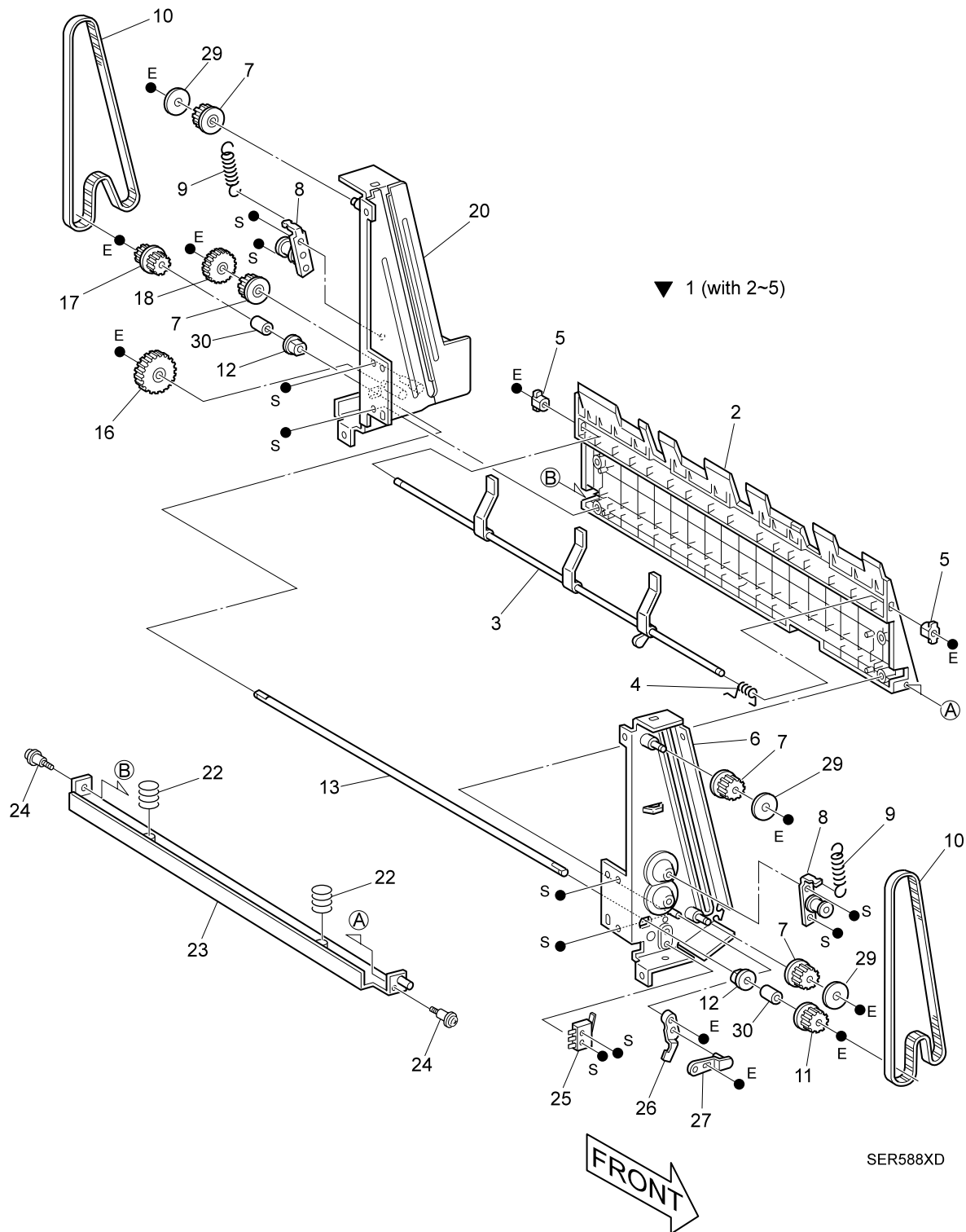
HCS-314



PL18.6 Top Tray

1. TRAY ASSEMBLY TOP (with 2~6, 10~20, 25~27, 29, 30, and 33~36)	P/N 865050K30240
2. TRAY STACKER	N/A
3. ACTUATOR NO PAPER	N/A
4. SPRING TORSION	N/A
5. SENSOR PI, DH.....	N/A
6. BRACKET NO PAPER	N/A
7. 8. 9. N/A	
10. CARRIAGE ASSEMBLY (with 11, 12).....	N/A
11. CARRIAGE	N/A
12. ROLL ELEV	N/A
13. COVER ELEV FRONT.....	N/A
14. REFERENCE ONLY (Exploded on PL18.7)	N/A
15. CLAMP.....	N/A
16. ACTUATOR LIMIT	N/A
17. MOTOR ASSEMBLY ELEV (with 18~20).....	N/A
18. MOTOR ASSEMBLY - DC	N/A
19. BRACKET MOTOR ELEV	N/A
20. GEAR 20Z	N/A
21. 22. 23. 24. N/A	
25. SENSOR ASSEMBLY (with 5, 26, 27, and 34).....	N/A
26. SENSOR PI, DL	N/A
27. BRACKET SENSOR ELEV	N/A
28. N/A	
29. COVER ELEV REAR	N/A
30. COVER HARNESS REAR.....	N/A
31. N/A	
32. N/A	
33. N/A	
34. GUIDE ACTUATOR.....	N/A
35. HARNESS ASSEMBLY TOP SENSOR.....	N/A
36. HARNESS ASSEMBLY TOP PAPER SENSOR	N/A
98. KIT ELEV COVER REAR (29 and 30).....	N/A
99. KIT ELEV ROLLER (Qty 4 of item 12).....	N/A

PL18.7 Top Tray Frame

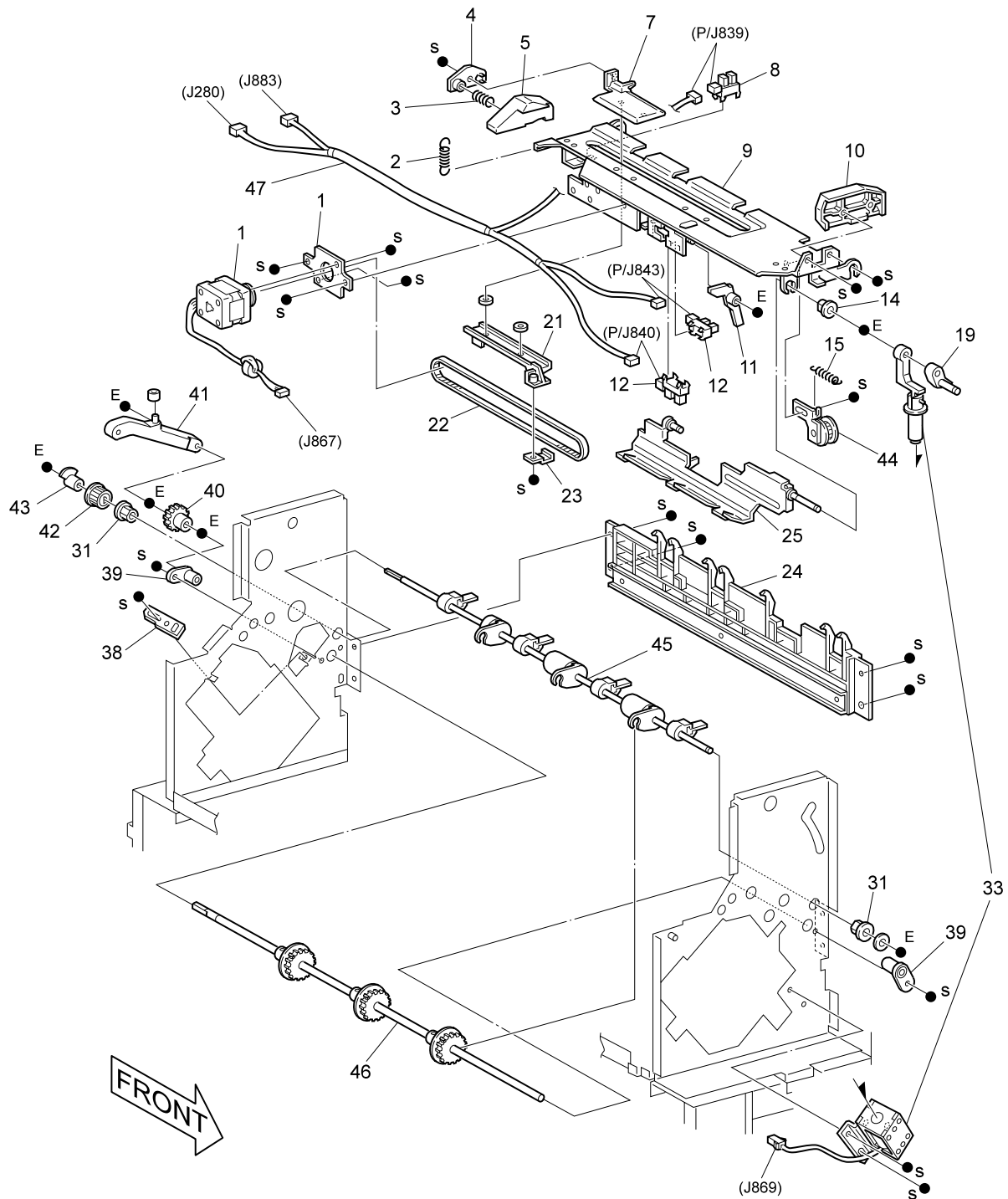


SER588XD

PL18.7 Top Tray Frame

1. GUIDE ASSEMBLY TRAY TOP (with 2~5)	P/N 865038K83330
2. GUIDE TRAY.....	N/A
3. STOPPER ASSEMBLY PAPER	N/A
4. SPRING TORSION	N/A
5. BEARING.....	N/A
6. FRAME ASSEMBLY ELEV FL.....	N/A
7. PULLEY IDL 20T	N/A
8. PLATE TENSION	N/A
9. SPRING EXIT	N/A
10. BELT	N/A
11. PULLEY DRV 18T.....	N/A
12. BEARING.....	N/A
13. SHAFT ELEV	N/A
14. N/A	
15. N/A	
16. GEAR SPUR 32Z	N/A
17. GEAR PULLEY 14Z/18T	N/A
18. GEAR SPUR 20Z	N/A
19. N/A	
20. FRAME ASSEMBLY ELEV REARN/	N/A
21. N/A	
22. SPRING EXIT	N/A
23. PLATE SHAFT	N/A
24. SCREW.....	N/A
25. SWITCH MICRO	N/A
26. LINK-IDL	N/A
27. LINK-PUSH	N/A
28. N/A	
29. FLANGE-PULLEY, 6.....	N/A

PL19.1 Tray Eject



SER575XD

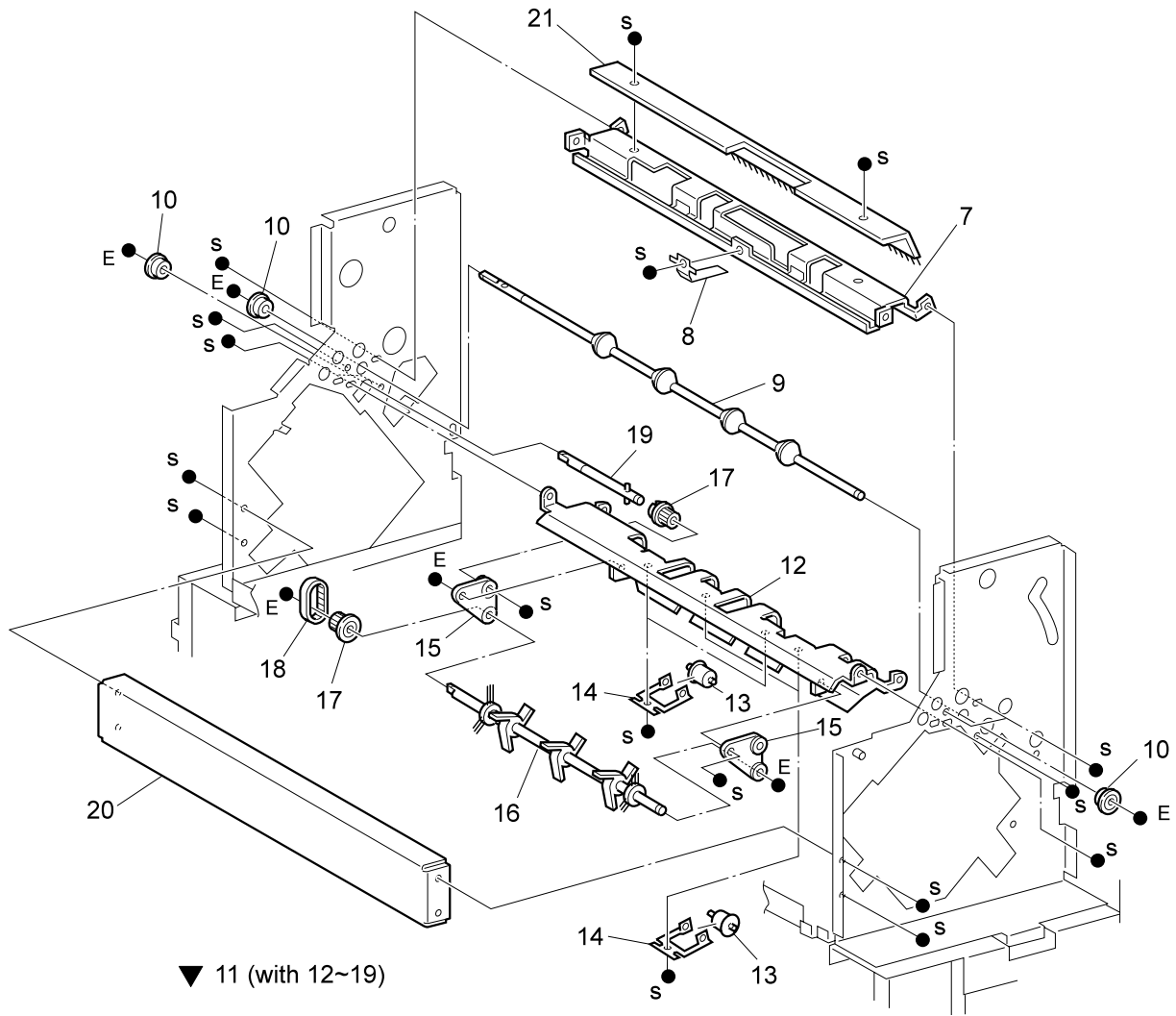
SER575XD

PL19.1 Tray Eject

1. MOTOR ASSEMBLY - TAMPER	P/N 865127K20870
2. SPRING - TRAY	N/A
3. SPRING - TAMPER	N/A
4. SUPPORT - TAMPER	N/A
5. GUIDE - TAMPER	N/A
6. N/A	
7. BASE - TAMPER	N/A
8. SENSOR PI, DH	N/A
9. TRAY ASSEMBLY - COMP	N/A
10. COVER - COMPILE	N/A
11. ACTUATOR	N/A
12. SENSOR PI, DL	N/A
13. N/A	
14. BEARING	N/A
15. SPRING - TENSION	P/N 865009E72520
16. 17. 18. N/A	
19. LINK - ENDWALL	N/A
20. N/A	
21. HOLDER - TAMPER	
22. BELT SYNCHRONOUS	P/N 865423W21053
23. HOLDER - BEL	N/A
24. CHUTE EJECT, ROLL	N/A
25. GUIDE ASSEMBLY - END	P/N 865038K83030
26. 27. 28. 29. 30. N/A	
31. BEARING	N/A
32. N/A	
33. SOLENOID ASSEMBLY	P/N 865121K13070
34. 35. 36. 37. N/A	
38. GUIDE-REGI	N/A
39. BEARING	N/A
40. GEAR EJECT (Z-20)	N/A
41. LEVER ASSEMBLY - OFFSET	N/A
42. PULLEY	N/A
43. ACTUATOR - SET CLAMP	N/A
44. BRACKET ASSEMBLY	N/A
45. SHAFT ASSEMBLY EJECT 1	P/N 865006K83650
46. SHAFT ASSEMBLY EJECT 2	N/A
47. HARNESS ASSEMBLY COMPILER COM	N/A

PL19.2 Exit

▼ 1 (with 7,8,21)



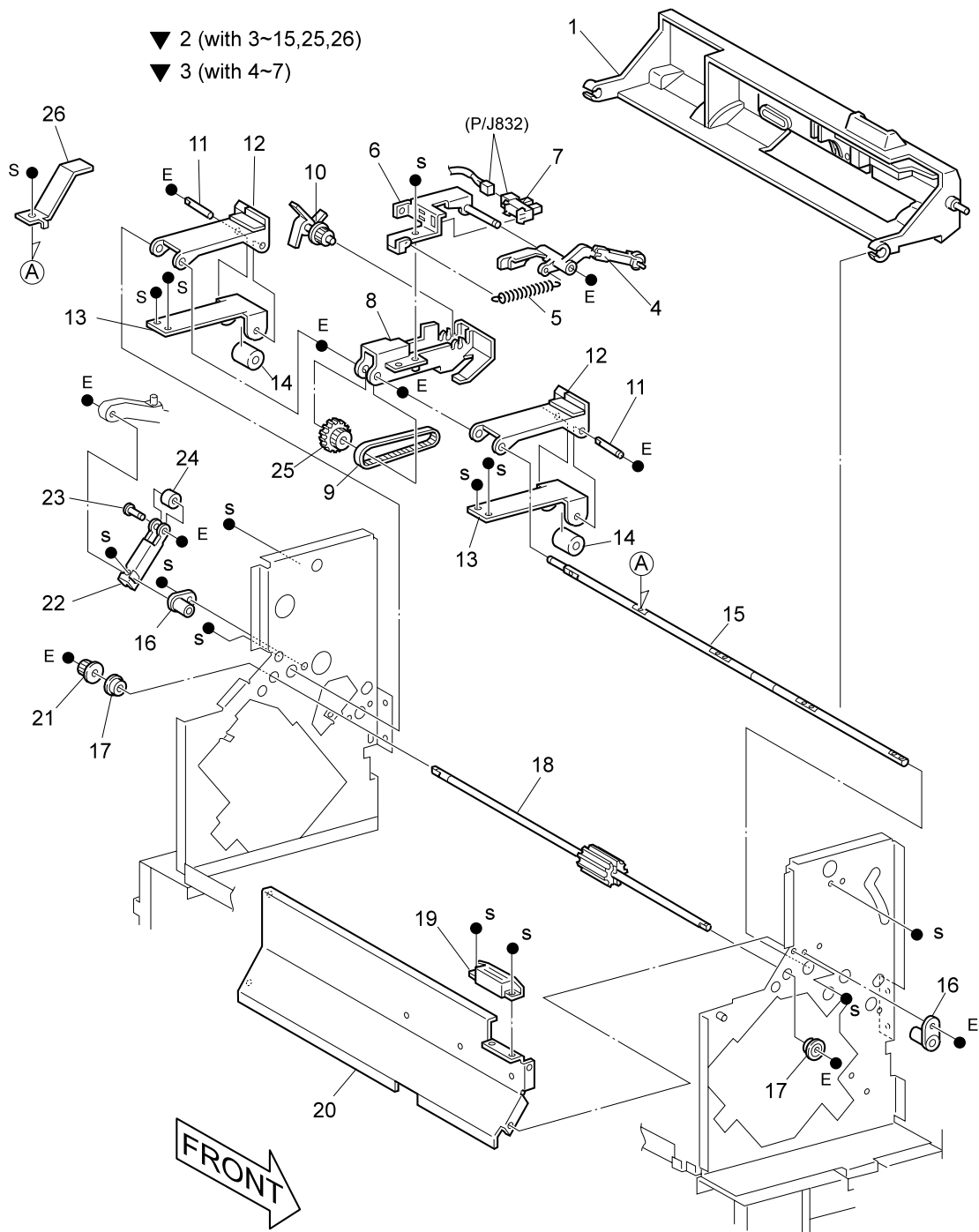
SER576FC

SER576FC

PL19.2 Exit

1. CHUTE ASSEMBLY UPPER, EXIT (WITH 6~8, and 21).....	P/N 865054K09370
2. N/A	
3. N/A	
4. N/A	
5. N/A	
6. N/A	
7. CHUTE - EXIT.....	N/A
8. SPRING GUIDE.....	N/A
9. SHAFT ASSEMBLY - EXIT.....	P/N 865006K83590
10. BEARING.....	N/A
11. CHUTE ASSEMBLY - LOWER, EXIT (with 12~19).....	P/N 865054K09360
12. CHUTE ASSEMBLY EXIT	N/A
13. ROLLER ASSEMBLY	N/A
14. SPRING PINCH	N/A
15. BEARING PADDLE	N/A
16. SHAFT ASSEMBLY - PADDLE.....	P/N 865006K83790
17. PULLEY EXIT	N/A
18. BELT - SYNCHRONOUS.....	P/N 865423W23352
19. SHAFT ASSEMBLY - DRIVE, PADDLE	N/A
20. PLATE-TIE	N/A
21. ELIMINATOR	N/A

PL19.3 Offset and Eject



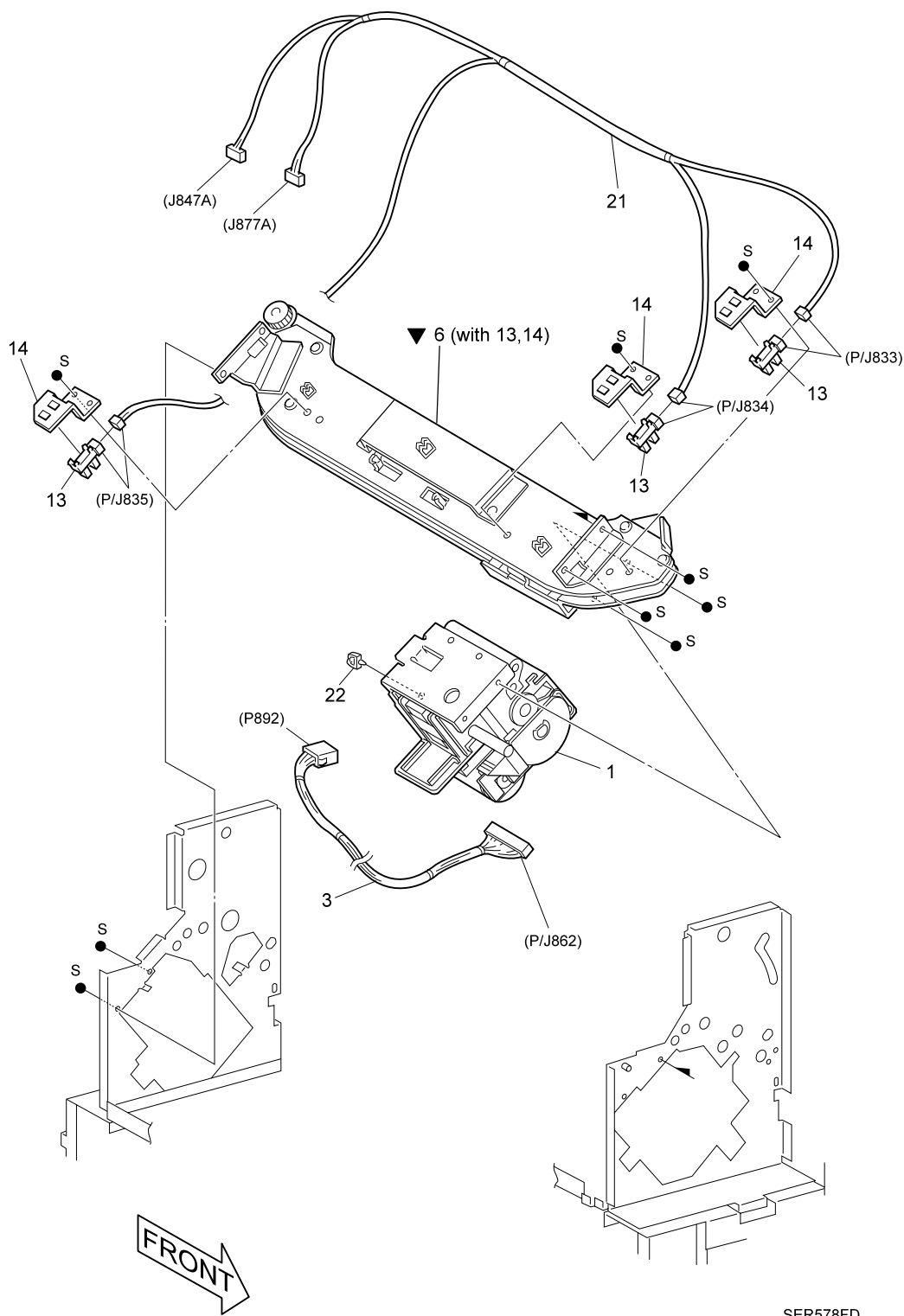
SER577FB

SER577FB

PL19.3 Offset and Eject

1. CHUTE ASSEMBLY EJECT.....	P/N 865054K09380
2. SHAFT ASSEMBLY - EJECT PINCH (with 3~15, 25 and 26).....	P/N 865006K83630
3. SENSOR ASSEMBLY - STACK HEIGHT (with 4~7).....	P/N 865130K87330
4. ACTUATOR ASSEMBLY	N/A
5. SPRING	N/A
6. BRACKET ASSEMBLY	N/A
7. SENSOR - PI, DH	N/A
8. COVER-REV, PADDLE.....	N/A
9. BELT SYNCHRONOUS.....	P/N 865423W09853
10. PADDLE ASSEMBLY	N/A
11. SHAFT	N/A
12. COVER PINCH ROLL	N/A
13. SPRING - PINCH ROLL	N/A
14. ROLL - PINCH.....	N/A
15. SHAFT PINCH ROLL.....	N/A
16. BEARING.....	N/A
17. BEARING.....	N/A
18. SHAFT ASSEMBLY EJECT.....	N/A
19. MAGNET	N/A
20. PLATE TIE COMMON.....	N/A
21. PULLEY 21T	N/A
22. LEVER.....	N/A
23. STUD	N/A
24. ROLL	N/A
25. GEAR.....	N/A
26. LEVER.....	N/A

PL19.4 Stapler



SER578FD

SER578FD

PL19.4 Stapler

1. STAPLER ASSEMBLY..... P/N 865029K91700
2. N/A
3. HARNESS ASSEMBLY STAPLER HEAD COM..... P/N 865162K18850
4. N/A
5. N/A
6. KIT RAIL STAPLER (with 13 and 14)..... P/N 865015K29130
7. N/A
8. N/A
9. N/A
10. N/A
11. N/A
12. N/A
13. SENSOR - PI, DH (see 6)..... N/A
14. BRACKET - SENSOR (see 6) N/A
15. N/A
16. N/A
17. N/A
18. N/A
19. N/A
20. N/A
21. HARNESS ASSEMBLY STAPLER SENSOR COM..... P/N 865162K18900
22. CLAMP LOCKING..... N/A

HCS-326

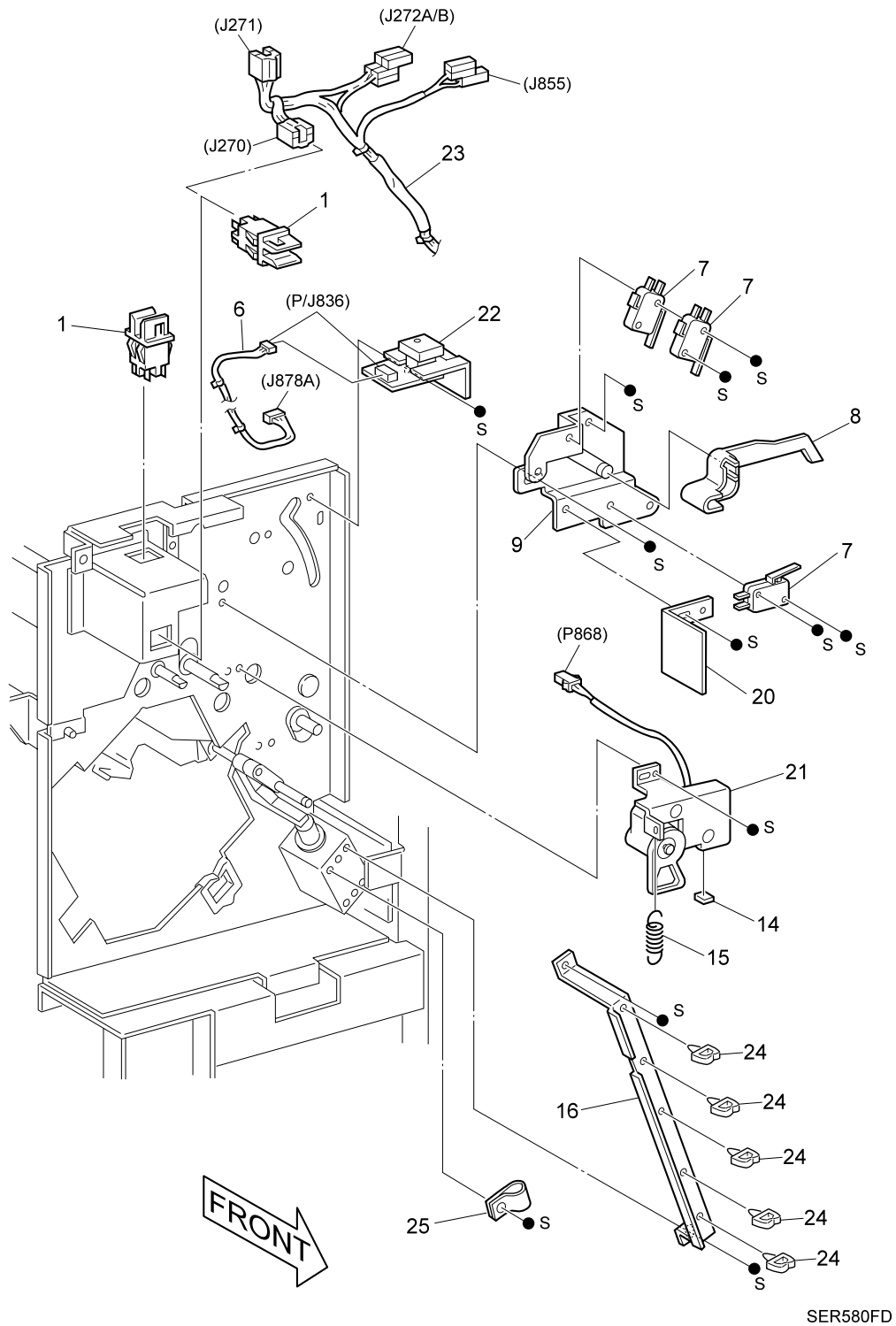


SER579FB

PL19.5 Transport

1. COVER ASSEMBLY - TOP	P/N 865048K58590
2. LINK - TENSION	N/A
3. PLATE - TIE	N/A
4. FRAME ASSEMBLY - REAR	N/A
5. BEARING	N/A
6. N/A	
7. SHAFT ASSEMBLY - TRANSPORT	N/A
8. CHUTE ASSEMBLY - LOWER	N/A
9. CHUTE ASSEMBLY - UPPER, TRANSPORT (with 11~13, 15, and 16)	P/N 865054K09340
10. N/A	
11. SENSOR ASSEMBLY	P/N 865130K93360
12. CHUTE ASSEMBLY - TRANSPORT	N/A
13. MAGNET CATCH	N/A
14. N/A	
15. SPRING - PINCH TRANSPORT	N/A
16. ROLL - PINCH	N/A
17. BRACKET HINGE	N/A
18. FRAME ASSEMBLY - FRONT	N/A
19. BRACKET	N/A
20. SCREW SL DEL M3X2X6	N/A
21. HARNESS ASSEMBLY COMP. EXIT SENSOR	N/A

PL20.1 Front Frame

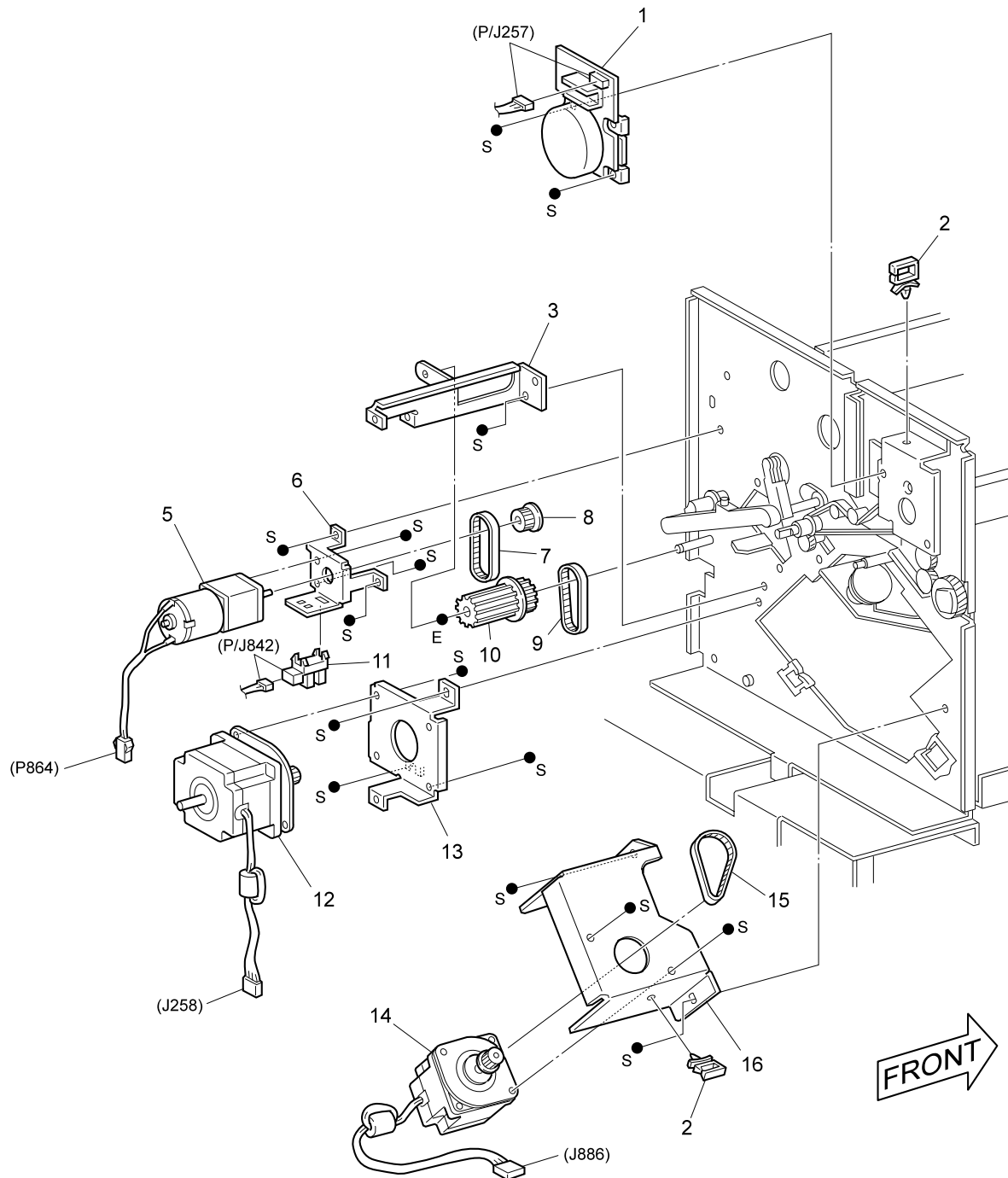


SER580FD

PL20.1 Front Frame

1. SWITCH	P/N 865110E97990
2. N/A	
3. N/A	
4. N/A	
5. N/A	
6. HARNESS ASSEMBLY - LED SWITCH.....	P/N 865162K31670
7. SWITCH - MICRO.....	N/A
8. ACTUATOR - INTERLOCK	P/N 865120E99660
9. BRACKET ASSEMBLY	N/A
10. N/A	
11. N/A	
12. N/A	
13. N/A	
14. DAMPER.....	N/A
15. SPRING - ENDWALL.....	P/N 865009E72550
16. HOLDER HARNESS	N/A
17. N/A	
18. N/A	
19. N/A	
20. BRACKET	N/A
21. MOTOR ASSEMBLY - END WALL.....	N/A
22. SWITCH ASSEMBLY	N/A
23. HARNESS ASSEMBLY INTERLOCK M.....	N/A
24. CLAMP.....	N/A
25. CLAMP-P	N/A
99. KIT MOTOR.....	P/N 865600K65890

PL20.2 Rear Frame 1



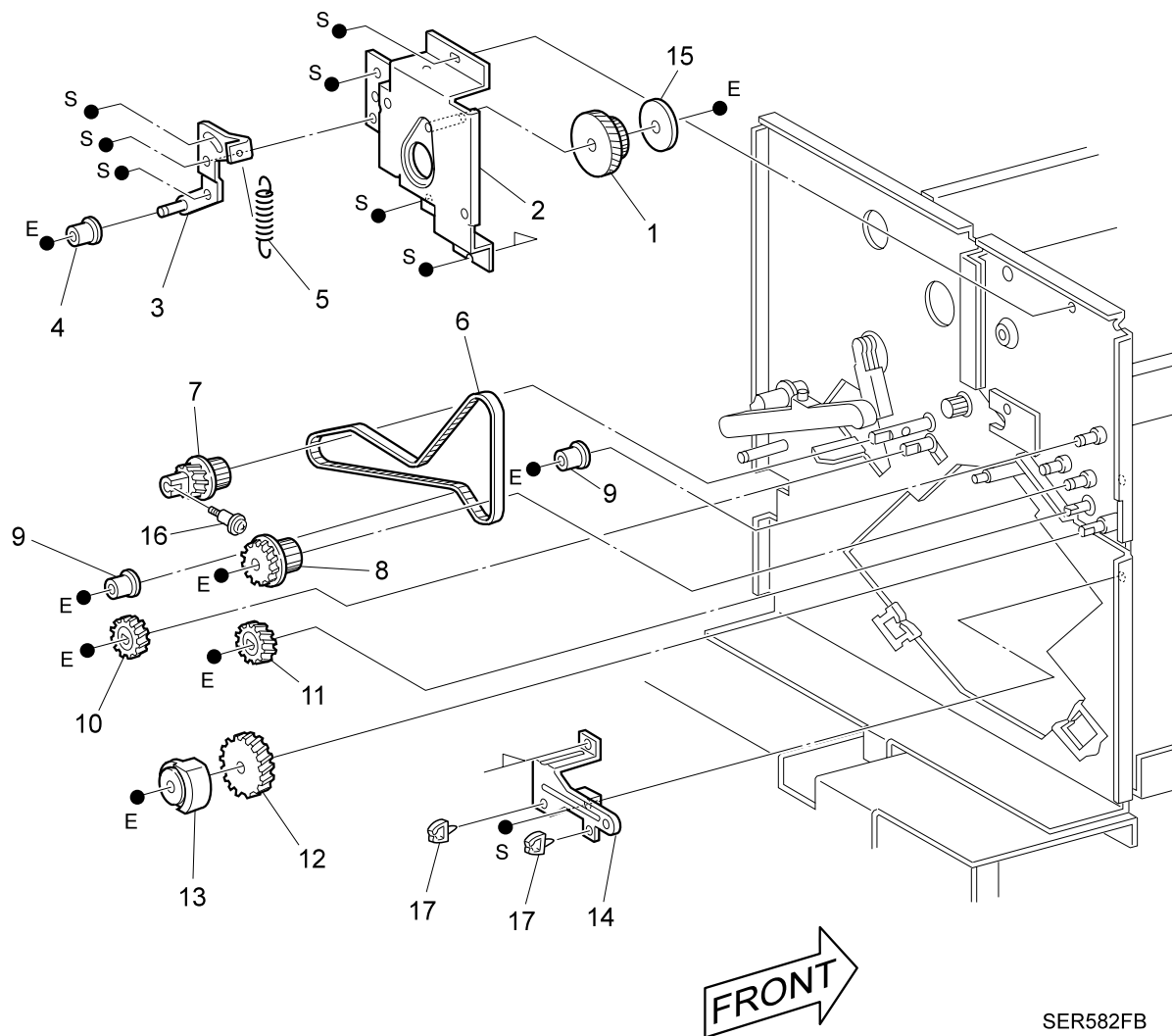
SER581FA

SER581FA

PL20.2 Rear Frame 1

1. MOTOR ASSEMBLY - TRANSPORT	N/A
2. CLAMP.....	N/A
3. BRACKET	N/A
4. N/A	
5. MOTOR ASSEMBLY - DC	P/N 865127K19360
6. BRACKET MOTOR	N/A
7. BELT SYNCHRONOUS.....	P/N 865423W25953
8. PULLEY (23T).....	P/N 865020E24810
9. BELT SYNCHRONOUS.....	P/N 865423W46753
10. PULLEY - EJECT (20T, Z-22).....	P/N 865020E24820
11. SENSOR - PI, DL	N/A
12. MOTOR ASSEMBLY - STEPPING	P/N 865127K20900
13. BRACKET - MOTOR	N/A
14. MOTOR ASSEMBLY - STEPPING	P/N 865127K16600
15. BELT SYNCHRONOUS.....	N/A
16. BRACKET MOTOR STAPLER	N/A

PL20.3 Rear Frame 2

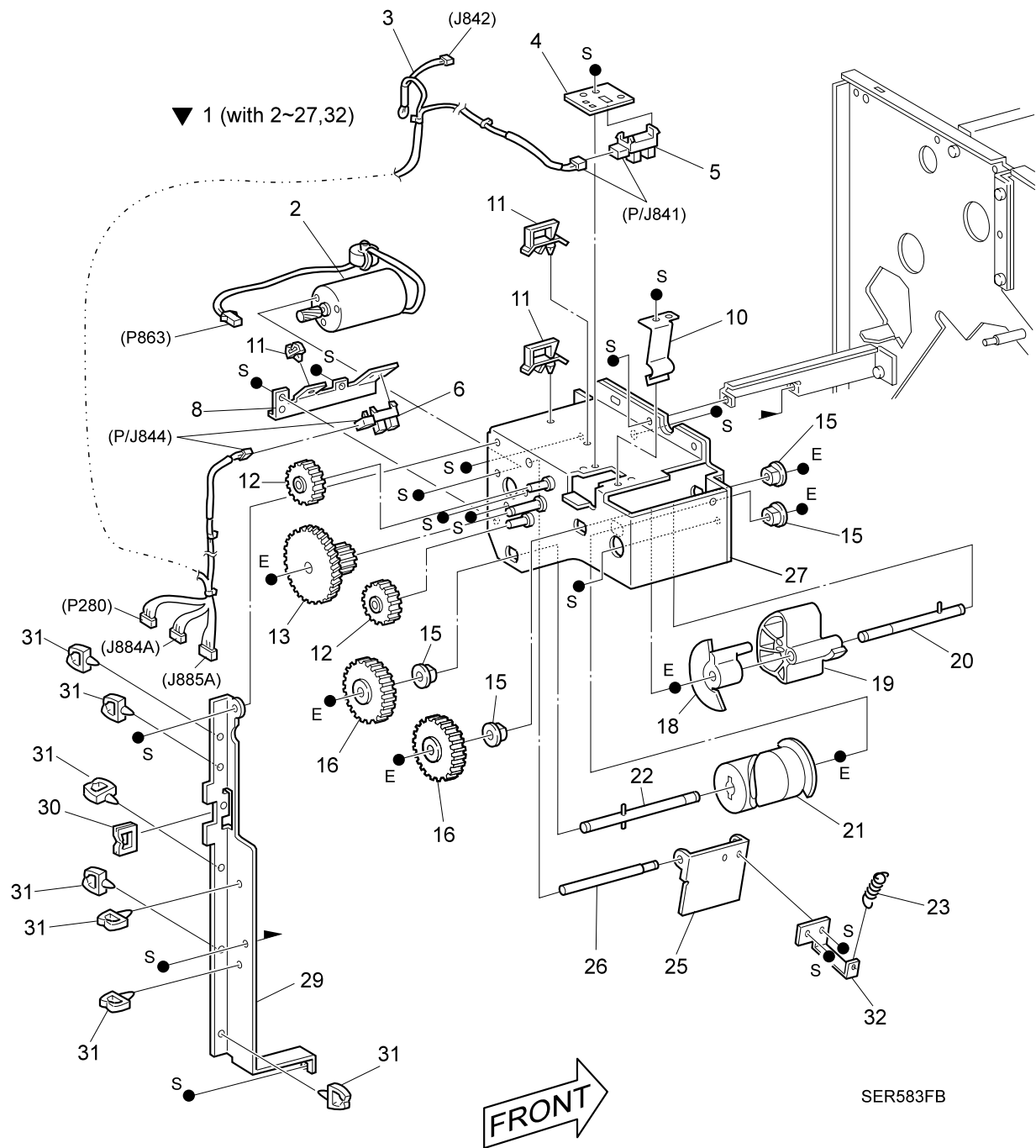


SER582FB

PL20.3 Rear Frame 2

1. GEAR (Z-50, T34).....	N/A
2. BRACKET - MOTOR	N/A
3. BRACKET ASSEMBLY TENSION.....	N/A
4. ROLLER - IDLER.....	N/A
5. SPRING - TENSION.....	P/N 865809E03060
6. BELT SYNCHRONOUS.....	P/N 865423W38053
7. GEAR Z17, T21.....	N/A
8. GEAR Z20, T21.....	N/A
9. ROLLER IDLER	N/A
10. GEAR 24Z	N/A
11. GEAR 20Z	N/A
12. GEAR - IDLER, L	N/A
13. SUPPORT - GEAR IDLE FIN	N/A
14. BRACKET HINGE	N/A
15. FLANGE.....	N/A
16. SCREW.....	N/A
17. CLAMP.....	N/A
98. MOTOR BRACKET KIT	P/N 865600K65920
99. KIT BELT GEAR	P/N 865600K65930

PL20.4 Rear Frame 3

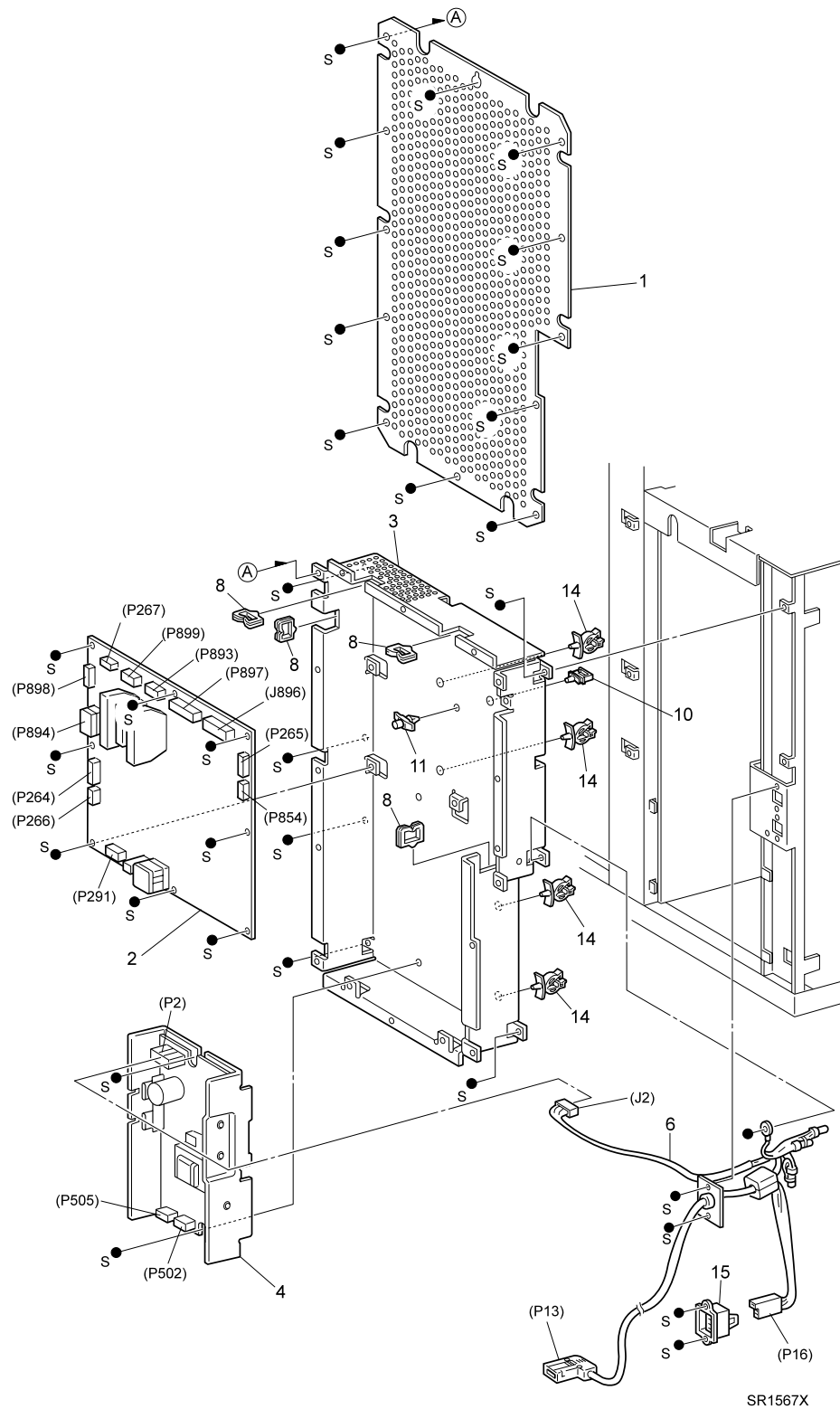


SER583FB

PL20.4 Rear Frame 3

1. BRACKET ASSEMBLY - EJECT (with 2~27, and 32)	P/N 865015K89060
2. MOTOR ASSEMBLY DC.....	P/N 865127K16360
3. HARNESS ASSEMBLY REAR COM.....	P/N 865162K18910
4. BRACKET - SENSOR CLAMP	N/A
5. SENSOR - PI, DH	N/A
6. SENSOR - PI, DL	N/A
7. N/A	
8. BRACKET - SENSOR, OFFSET.....	N/A
9. N/A	
10. SPRING - CLAMP CAM	N/A
11. CLAMP.....	N/A
12. GEAR.....	N/A
13. GEAR Z56(H), Z12	N/A
14. N/A	
15. BEARING.....	N/A
16. GEAR ASSEMBLY - ONEWAYN/A	
17. N/A	
18. ACTUATOR - EJECT CLAMP.....	N/A
19. CAM - EJECT CLAMP.....	N/A
20. SHAFT ASSEMBLY CLAMP	N/A
21. CAM - OFFSET + ACTUATOR - OFFSET	N/A
22. SHAFT ASSEMBLY OFFSET	N/A
23. SPRING	N/A
24. N/A	
25. LEVER - CLAMP UP	N/A
26. SHAFT - CLAMP UP	N/A
27. BRACKET ASSEMBLY	N/A
28. N/A	
29. BRACKET HARNESS.....	N/A
30. EDGE SADDLE	N/A
31. CLAMP.....	N/A
32. SPRING - CLAMP UP	N/A

PL21.1 Electrical Module



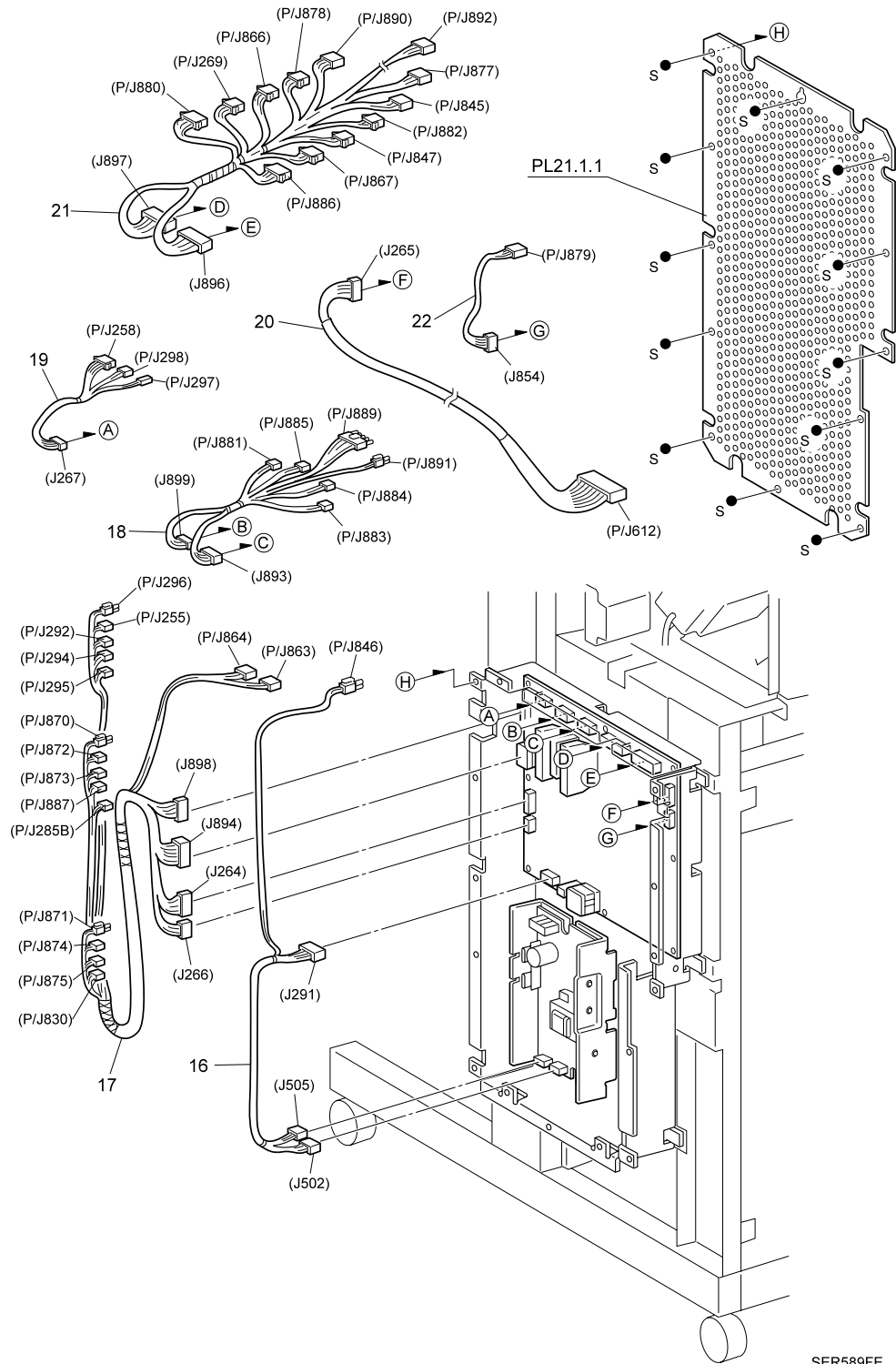
SR1567X

SR1567X

PL21.1 Electrical Module

1. COVER TOP PWBA.....	N/A
2. PWB ASSEMBLY - FIN	P/N 865160K36066
3. BRACKET PWBA LVPS.....	N/A
4. PSLV - PSLV OP11(120V).....	P/N 865105K12530
PSLV OPR4H (220V).....	P/N 865105K12560
5. N/A	
6. HARNESS ASSY AC IN OUT US.....	P/N 865162K31570
HARNESS ASSY AC IN OUT EU.....	P/N 865162K33920
7. N/A	
8. CLAMP.....	N/A
9. N/A	
10. CLAMP.....	N/A
11. PWB - SUPPORT PROTRUDE	N/A
12. N/A	
13. N/A	
14. CLAMP LOCKING.....	N/A
15. HOUSING	N/A

PL21.2 Harness



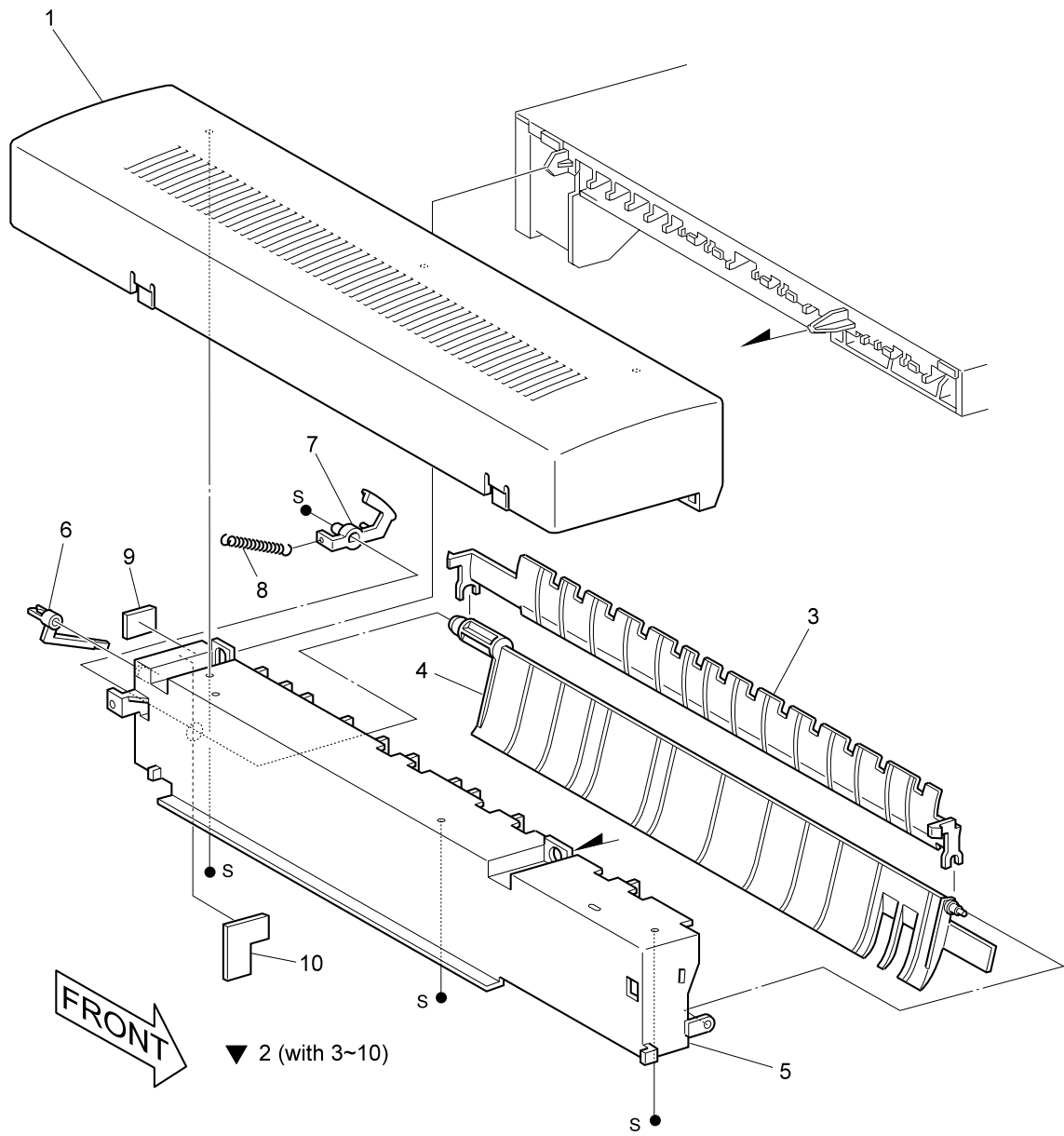
SER589FE

SER589FE

PL21.2 Harness

1. N/A
2. N/A
3. N/A
4. N/A
5. N/A
6. N/A
7. N/A
8. N/A
9. N/A
10. N/A
11. N/A
12. N/A
13. N/A
14. N/A
15. N/A
16. HARNESS ASSEMBLY LVPS N/A
17. HARNESS ASSEMBLY TRAY UNIT MOVE N/A
18. HARNESS ASSEMBLY DC MAIN COM-2..... N/A
19. HARNESS ASSEMBLY EJECT MOT N/A
20. HARNESS ASSEMBLY IOT - FIN N/A
21. HARNESS ASSEMBLY DC MAIN COM-1..... N/A
22. HARNESS ASSEMBLY H - TRA SNR N/A

PL22.1 HCS DOC



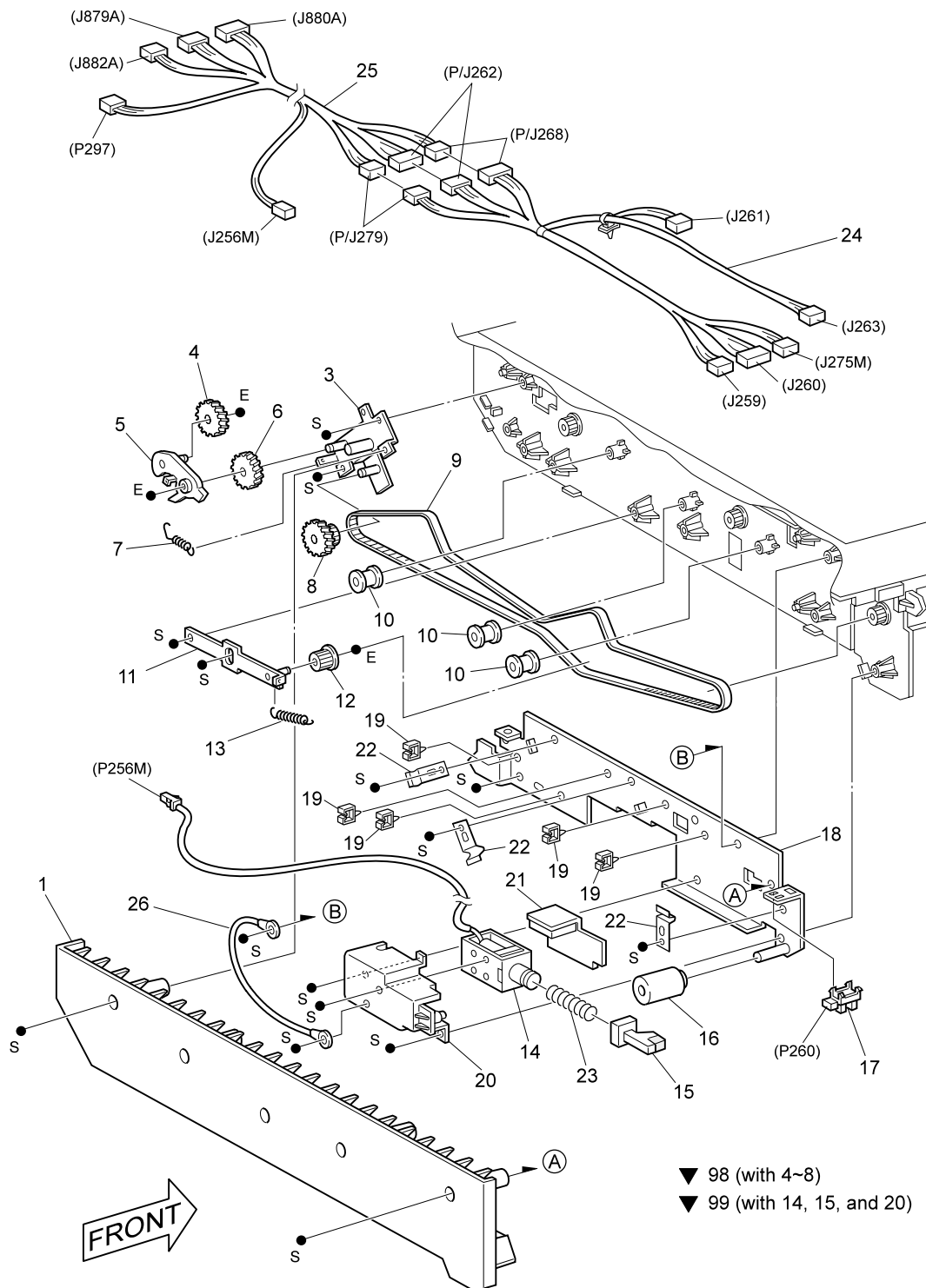
SER585FB

SER585FB

PL22.1 HCS DOC

1. COVER ASSEMBLY - DOC, IOT.....	P/N 865048K58321
2. SUPPORT ASSEMBLY - GATE, IN (with 3~10).....	P/N 865015K28221
3. CHUTE UPPER.....	N/A
4. GATE IN.....	N/A
5. SUPPORT GATE IN.....	N/A
6. ACTUATOR GATE IN	P/N 865120E12381
7. LEVER GATE IN	N/A
8. SPRING GATE IN.....	P/N 865809E03020
9. DAMPER SUPPORT 1	N/A
10. DAMPER SUPPORT 2	N/A

PL23.1 Frame Transport, Rear



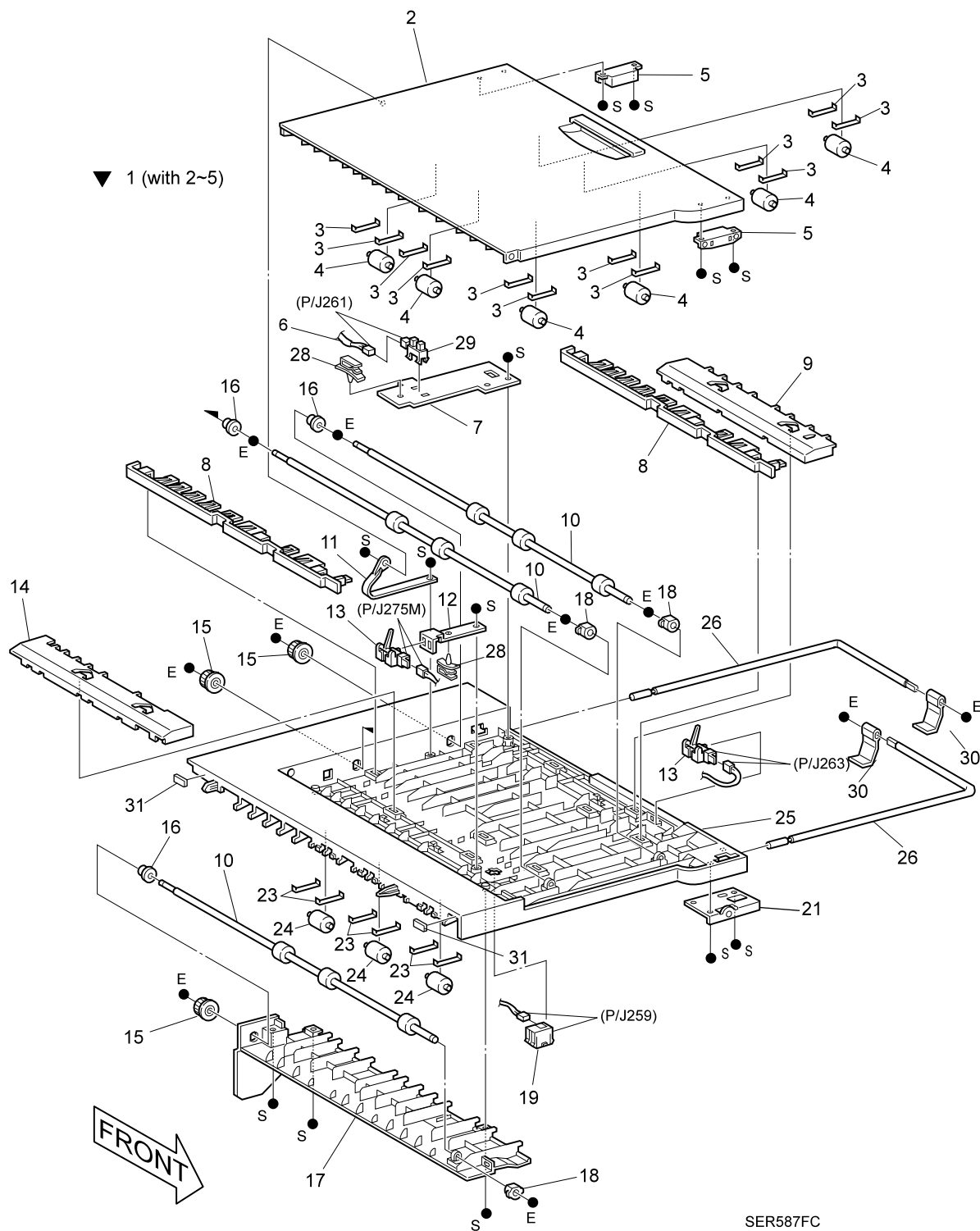
SER586XJ

SER586XJ

PL23.1 Frame Transport, Rear

1. COVER REAR	P/N 865048E45900
2. N/A	
3. BRACKET ASSEMBLY DRIVE.....	N/A
4. GEAR IDLE R.....	N/A
5. SUPPORT ASSEMBLY GEAR IDLE HT	N/A
6. GEAR IDLE L	N/A
7. SPRING GEAR 250	N/A
8. GEAR PULLEY 32/26	N/A
9. BELT - SYNC.....	P/N 865023E13210
10. PULLEY	N/A
11. BRACKET - ASSEMBLY TENSION	N/A
12. PULLEY 2	N/A
13. SPRING TENSION 80	P/N 865809E03000
14. SOLENOID ASSEMBLY.....	N/A
15. LINK ASSEMBLY DAMPER	N/A
16. ROLLER UNIT	P/N 865022E84460
17. SENSOR - PI, DL	N/A
18. BRACKET ASSEMBLY	N/A
19. CLAMP SADDLE	N/A
20. COVER ASSEMBLY SOLENOID.....	N/A
21. BRACKET ASSEMBLY DAMPER	N/A
22. SPRING PLATE	N/A
23. SPRING SOLENOID	N/A
24. HARNESS ASSEMBLY H-TRA SENSOR 1.....	N/A
25. HARNESS ASSEMBLY H-TRA SENSOR 2.....	N/A
26. HARNESS EARTH	N/A
98. KIT TRANSPORT GEAR (with 4 ~ 8).....	P/N 865600K61680
99. KIT GATE SOLENOID (with 14, 15, 20).....	P/N 865600K61690

PL23.2 Frame Transport, Open



SER587FC

SER587FC

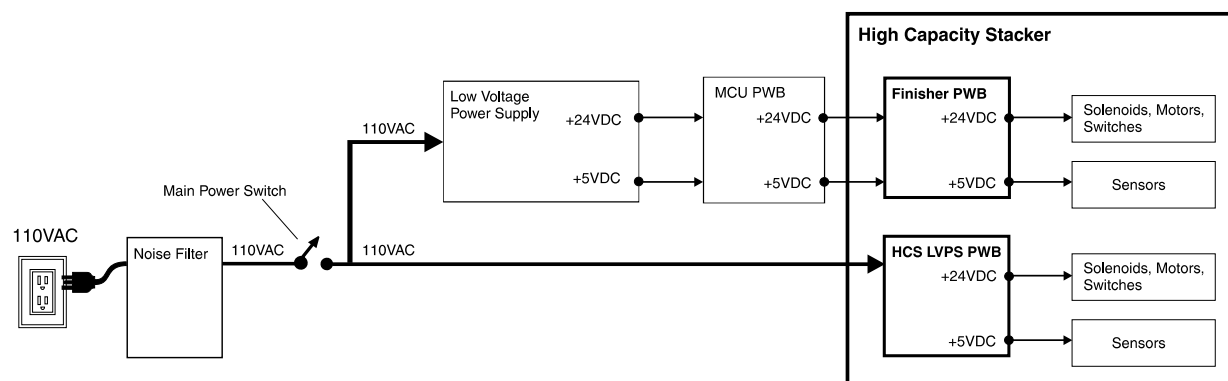
PL23.2 Frame Transport, Open

1. COVER ASSEMBLY - OPEN (with 2~5)	P/N 865048K58511
2. COVER ASSEMBLY - OPEN	N/A
3. SPRING PINCH, OPEN.....	N/A
4. ROLL - PINCH.....	N/A
5. MAGNET 1.5	N/A
6. HARNESS ASSEMBLY H-TRA SENSOR 1.....	N/A
7. PLATE SENSOR, PHOTO.....	N/A
8. GUIDE ROLL, TRANSPORT.....	N/A
9. COVER SENSOR, PASS	N/A
10. ROLL TRANSPORT	P/N 865022K47500
11. SUPPORT - LH COVER.....	P/N 865049E08041
12. BRACKET PASS SENSOR	N/A
13. SENSOR ASSEMBLY	N/A
14. COVER SENSOR, FULL.....	N/A
15. PULLEY - ONEWAY	N/A
16. BEARING.....	N/A
17. COVER CHUTE.....	N/A
18. BEARING.....	N/A
19. SENSOR	P/N 865130E82970
20. N/A	
21. BRACKET MAGNET.....	N/A
22. SENSOR ASSEMBLY	N/A
23. SPRING - PINCH	N/A
24. ROLL - PINCH.....	N/A
25. FRAME ASSEMBLY - TRANSPORT	N/A
26. SHAFT - TRANSPORT	N/A
27. SHAFT - TRANSPORT	N/A
28. CLAMP MINI CLAMP	N/A
29. SENSOR PI, PL	N/A
30. LEVER SUPPORT	N/A

1- High Capacity Stacker Power

The base engine MCU PWB provides the +5VDC and +24VDC that the High Capacity Stacker requires for operation. The base engine also provides filtered 110VAC to the HCS.

The printer AC power cord plugs into a grounded AC wall outlet. The cord carries AC line voltage to the Noise Filter PWB. The Noise Filter smooths the AC voltage and sends it to the Main Power Switch. Switching on the Main Power Switch applies AC voltage to the Low Voltage Power Supply (LVPS) PWB. The LVPS converts the 110VAC to regulated +5VDC and +24VDC voltages. The LVPS sends these voltages to the MCU PWB. The MCU sends these two DC voltages to the **Finisher PWB**. The Finisher PWB uses these voltages to run internal logic, sensors, solenoids, and the HCS Motors. The Base Engine also sends filtered 110VAC to the **HCS - LVPS PWB**. The HCS-LVPS converts this 110VAC to regulated +5VDC and +24VDC for additional HCS uses. The HCS - LVPS +24VDC output is controlled by the Front Cover Interlock, the Top Cover Interlock, and the Compiler Cover Interlock switches. The +24VDC out of the HCS -LVPS is cut whenever any of the HCS doors are opened.



SR1482X

HCS Power Components

1. Finisher PWB

Receives +5VDC and +24VDC from the MCU PWB and distributes the them to various HCS components.

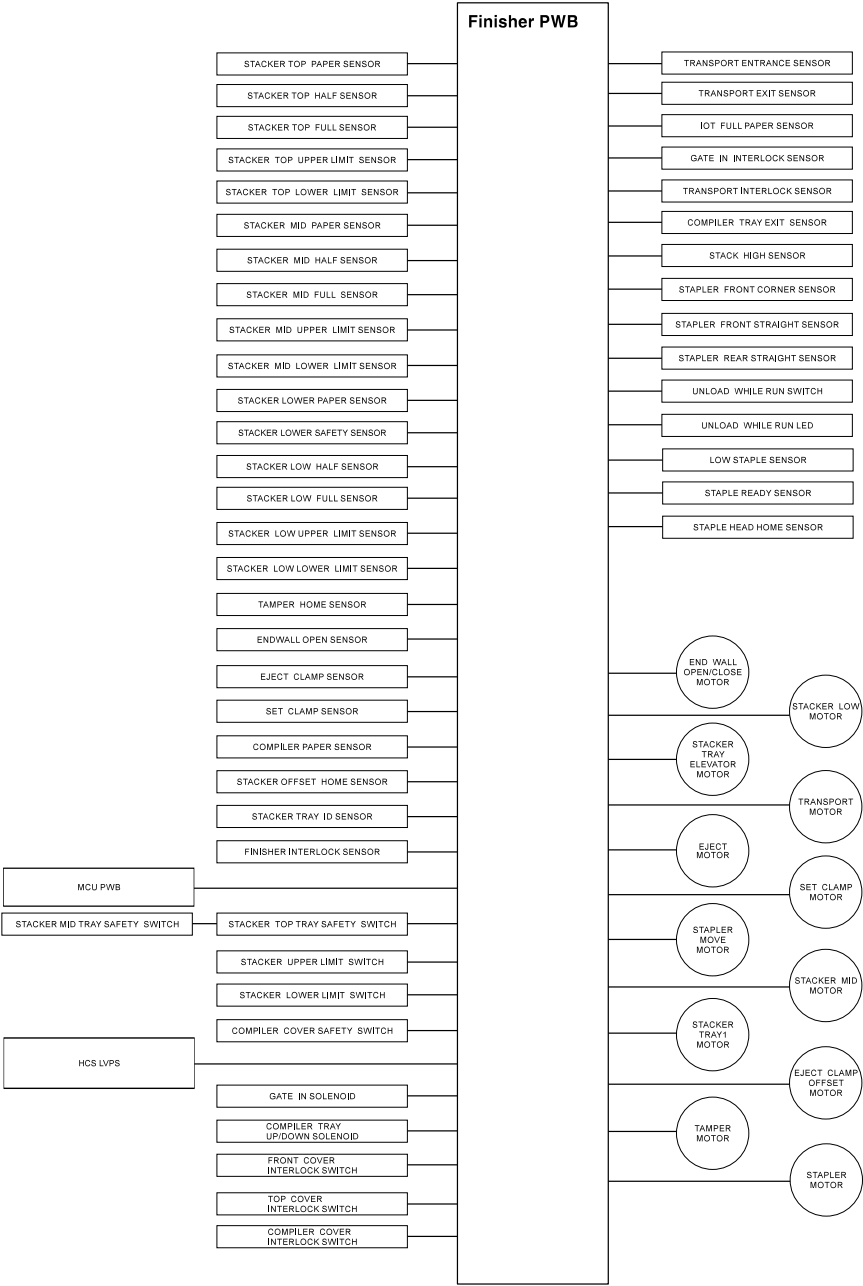
2. HCS - LVPS

Receives 110VAC from the base engine, converts it into +5VDC and +24VDC, and distributes them to various HCS components.

2- High Capacity Stacker Control

High Capacity Stacker Control is a broad term that is used to describe the resources that monitor and control the actions and operations of the HCS; from paper entrance to paper stacking.

The center of HCS control is the **Finisher PWB**. The MCU PWB provides the logic and information processing that is necessary for the printer to function, and the Finisher PWB provides the logic and information processing that is necessary for the HCS to function. Every electrical component within the HCS is connected to the Finisher PWB. Sensors in the HCS send Stacker status information to the Finisher PWB. The Finisher PWB processes that information, shares it with the MCU PWB, and compares it to timing tables stored in ROM. Acting on the results of the processing, the Finisher PWB sends commands to the various HCS components; switching on a motor or switching off a solenoid.



SR1504XA

HCS Control Components

1. Finisher PWB

The Finisher PWB controls all HCS functions, executes commands sent from the MCU PWB, and sends information back to the MCU PWB. All HCS components are connected to the Finisher PWB.

2. HCS Low Voltage Power Supply

Takes 110VAC from the base engine and converts it into +5VDC and +24VDC for the HCS.

3. MCU PWB

Connects to the Finisher PWB. The MCU PWB provides logic, commands, and +5VDC and +25VDC to the Finisher PWB.

4. Unload While Run Switch and LED

Switch that allows a user to interrupt the current stacking operation. The LED lights to indicate the interrupt state.

5. Finisher Interlock Sensor

Monitors the state of the Finisher door.

6. Front Cover Interlock Switch

Cuts +24VDC to the HCS when the Front Cover is open.

7. Compiler Cover Safety Switch

Cuts +24VDC to the HCS when the Compiler Cover is open.

8. Top Tray Safety Switch

Connected to an actuator that runs along the underside the Top Tray. If there is an obstruction under the Top Tray when the Elevator Motor lowers the Stacker Unit, the obstruction presses against the metal bar, which in turn actuates the Top Tray Safety Switch. The switch cuts +24VDC to the HCS and immediately stops the Elevator Motor. The Top Tray Safety Switch is in series with the Middle Tray Safety Switch.

9. Middle Tray Safety Switch

Connected to an actuator that runs along the underside the Middle Tray. If there is an obstruction under the Middle Tray when the Elevator Motor lowers the Stacker Unit, the obstruction presses against the metal bar, which in turn actuates the Middle Tray Safety Switch. The switch cuts +24VDC to the HCS and immediately stops the Elevator Motor. The Middle Tray Safety Switch is in series with the Top Tray Safety Switch.

Transport

The Transport moves paper from the DOC to the Compiler.

1. IN Gate Solenoid

Toggles the IN Gate.

2. IN Gate Interlock Sensor

Monitors the position of the IN Gate (up or down).

3. Transport Entrance Sensor

Monitors paper travel into the Transport Assembly.

4. IOT Full Paper Sensor

Monitors the paper level in the base engine Face Down output tray.

5. Transport Exit Sensor

Monitors paper travel out of the Transport Assembly.

6. Transport Interlock Sensor

Monitors the condition of the Transport Cover (open or closed).

7. Transport Motor

Drives the Transport Rolls.

Compiler

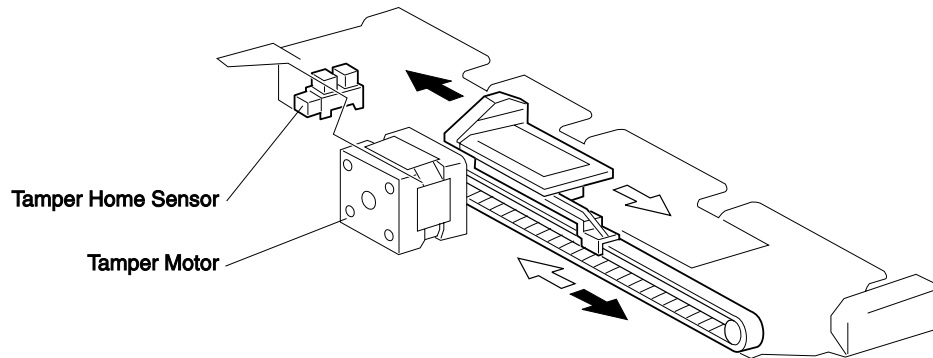
The Compiler arranges paper into sets.

1. Tamper Motor

Drives the paper stack Tamper.

2. Tamper Home Sensor

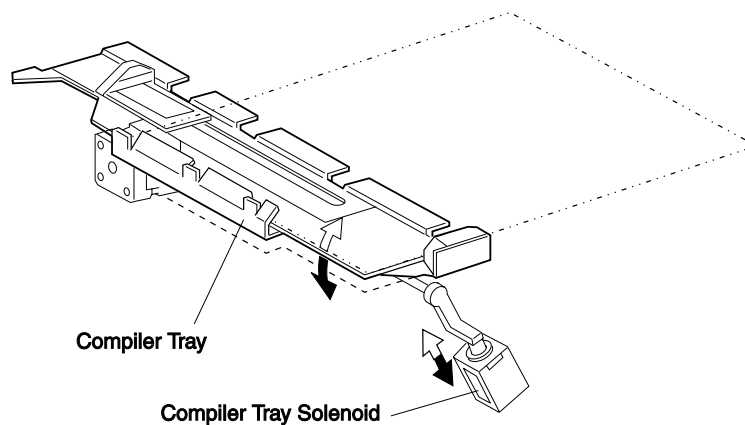
Monitors the position of the Tamper.



SR1506X

3. Compiler Tray Up/Down Solenoid

Tilts the Compiler Tray when the paper stack reaches 25 sheets.



SR1505X

4. End Wall Open/Close Motor

Controls the opening and closing of the End Wall.

5. End Wall Open Sensor

Monitors the position of the End Wall.

6. Compiler Tray Exit Sensor

Monitors paper leaving the entrance area of the Compiler. The signal from the Sensor is used by the HCS logic to start and stop the Transport Motor and the Eject Motor.

7. Compiler Paper Sensor

Monitors paper on the Compiler Tray.

8. Compiler Cover Interlock Switch

Monitors the position of the Compiler Cover.

Stapler

The Stapler staples sets of paper.

1. Stapler Front Corner Sensor

Marks the position of the Stapler Unit for stapling in the front corner of a paper set.

2. Stapler Front Straight Sensor

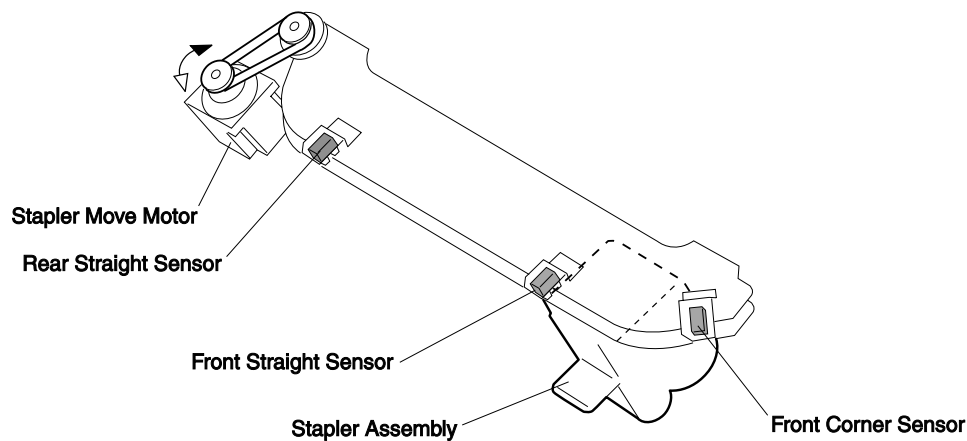
Marks the position of the Stapler Unit so the Move Motor can shift the Stapler to the correct positions for stapling at the front and rear edges of a paper set.

3. Stapler Rear Straight Sensor

Marks the position of the Stapler Unit so the Move Motor can shift the Stapler to the correct position for stapling at the rear corner of a paper set.

4. Stapler Move Motor

Moves the Stapler Head into position.



SR1511X

5. Stapler Motor

Drives the Stapler Head while it is stapling a paper set.

6. Staple Ready Sensor

Monitors the presence of a staple in the Staple Head.

7. Low Staple Sensor

Monitors the level of staples in the Stapler.

8. Stapler Head Home Sensor

Monitors whether or not the Stapler Head is in the home position.

9. Set Clamp Home Sensor

Monitors whether or not the Set Clamp is in the home position.

10. Set Clamp Motor

Drives the Set Clamp paddles to clamp a paper set onto the Compiler Tray prior to stapling.

Eject and Offset

The Eject and Offset transport and offset compiled sets of paper into the Stacker Trays.

1. Eject Clamp and Offset Motor

Raises and lowers the Eject Chute and Pinch Roll, and drives the Offset Actuator.

2. Eject Clamp Sensor

Monitors whether the Eject Roll is in the up or the down position.

3. Stacker Offset Home Sensor

Monitors whether or not the Eject Roll is in the home position.

4. Eject Motor

Drives the Eject Shaft Assembly.

Stacker Unit

Provides the mechanism for raising and lowering the three Stacker Trays.

1. Stacker Tray Elevator Motor

Rotates the Stacker Drive shaft clockwise to raise the Stacker Trays and counter clockwise to lower the Stacker Trays.

2. Stacker Tray ID Sensor

Monitors the Stacker for correct Tray positions during initialization.

3. Stacker Upper Limit Switch

Safety switch in case the Elevator Motor raises the Stacker Trays too far. This switch cuts DC to the Elevator Motor.

4. Stacker Lower Limit Switch

Safety switch in case the Elevator Motor lowers the Stacker Trays too far. This switch cuts DC to the Elevator Motor.

5. Stacker Lower Safety Switch

Monitors for any obstacles under the Bottom Tray.

6. Stack Height Sensor

Monitors the position of the HCS trays.

Stacker Top Tray

Provides the mechanism for raising and lowering the Top Stacker Tray.

1. Stacker Tray 1 Motor

Raises the Top Tray up and down.

2. Stacker Top Paper Sensor

Monitors the presence of paper in the Top Tray.

3. Stacker Top Full Sensor

Monitors the Top Tray and detects when the Tray is full.

4. Stacker Top Half Sensor

Monitors the Top Tray and detects when the Tray 50% full.

5. Stacker Top Upper Limit Sensor

Safety sensor that monitors the Top Tray upper movement. If the Top Tray raises too far, the signal from the sensor has the Finisher PWB cut DC to the Stacker Tray 1 Motor.

6. Stacker Top Lower Limit Sensor

Safety sensor that monitors the Top Tray lower movement. If the Top Tray lowers too far, the signal from the sensor has the Finisher PWB cut DC to the Stacker Tray 1 Motor.

Stacker Middle Tray

Provides the mechanism for raising and lowering the Middle Stacker Tray.

1. Stacker Middle Motor

Raises the Middle Tray up and down.

2. Stacker Middle Paper Sensor

Monitors the presence of paper in the Middle Tray.

3. Stacker Middle Full Sensor

Monitors the Middle Tray and detects when the Tray is full.

4. Stacker Middle Half Sensor

Monitors the Middle Tray and detects when the Tray 50% full.

5. Stacker Middle Upper Limit Sensor

Safety sensor that monitors the Middle Tray upper movement. If the Middle Tray raises too far, the signal from the sensor has the Finisher PWB cut DC to the Stacker Middle Motor.

6. Stacker Middle Lower Limit Sensor

Safety sensor that monitors the Middle Tray lower movement. If the Middle Tray lowers too far, the signal from the sensor has the Finisher PWB cut DC to the Stacker Middle Motor.

Stacker Bottom Tray

Provides the mechanism for raising and lowering the Bottom Stacker Tray.

1. Stacker Low Motor

Raises the Bottom Tray up and down.

2. Stacker Low Paper Sensor

Monitors the presence of paper in the Bottom Tray.

3. Stacker Low Full Sensor

Monitors the Bottom Tray and detects when the Tray is full.

4. Stacker Low Half Sensor

Monitors the Bottom Tray and detects when the Tray 50% full.

5. Stacker Low Upper Limit Sensor

Safety sensor that monitors the Bottom Tray upper movement. If the Bottom Tray raises too far, the signal from the sensor has the Finisher PWB cut DC to the Stacker Low Motor.

6. Stacker Low Lower Limit Sensor

Safety sensor that monitors the Bottom Tray lower movement. If the Bottom Tray lowers too far, the signal from the sensor has the Finisher PWB cut DC to the Stacker Low Motor.

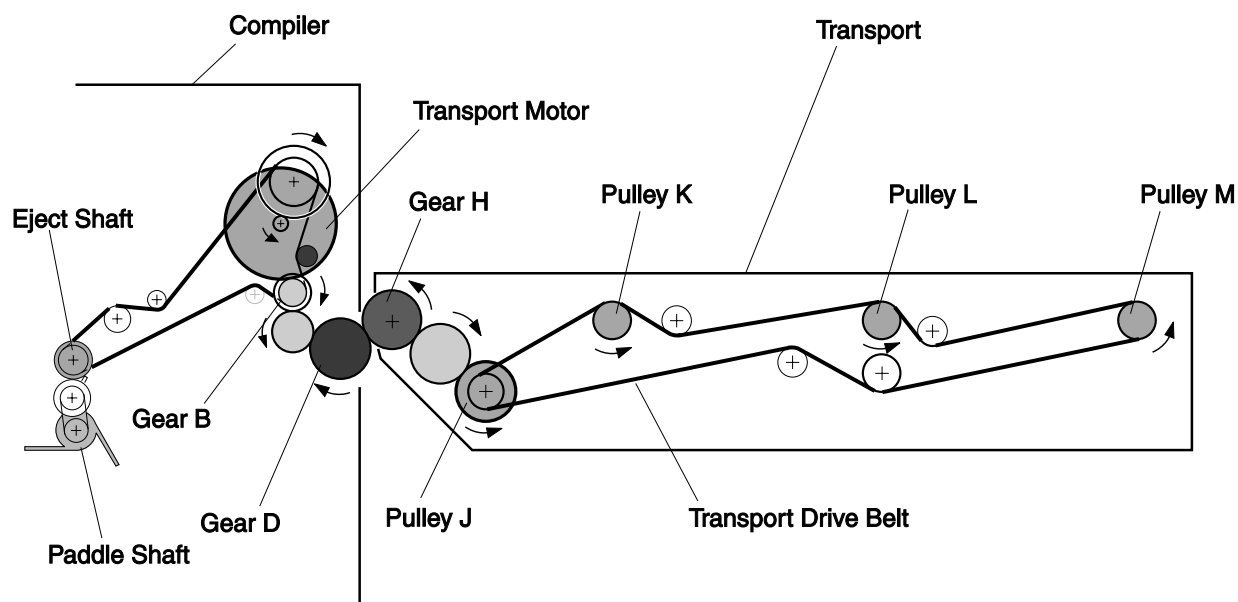
3- Mechanical Drive

Mechanical Drive is the term used to describe the various motors, solenoids, gears, and belts that are used to generate, control, and transmit drive to the various paper path components within the HCS.

1- Transport Motor

The Transport Motor is located in the Compiler section of the HCS. When the Finisher PWB switches on the Transport Motor, a set of gears transmit drive from the Transport Motor to Gear D. Gear D extends out of the Compiler and Gear H extends out of the Transport. Then the Transport in place, Gear D contacts Gear H and transmits drive to Transport Pulley J. One end of the Transport Drive Belt is attached to Pulley J, loops over Pulley K and Pulley L, and attaches to Pulley M at the other end. Tension Rolls along the way make sure the belt provides maximum drive transfer to each Pulley. Pulley K, Pulley L, and Pulley M drive the three Transport Rolls.

Inside the Compiler, the Transport Motor drives Gear B, which drives the Compiler Transport Rolls. The Compiler Drive Belt also drives the Eject Shaft and the Paddle Shaft.



SR1516X

Transport Mechanical Drive Components

1. Transport Motor

A +24 VDC stepper motor. Provides drive for both the Transport Assembly and the Exit Assembly.

2. Transport Gears C, D H, and I

Transmits Motor drive to Transport Pulley J

3. Transport Drive Belt

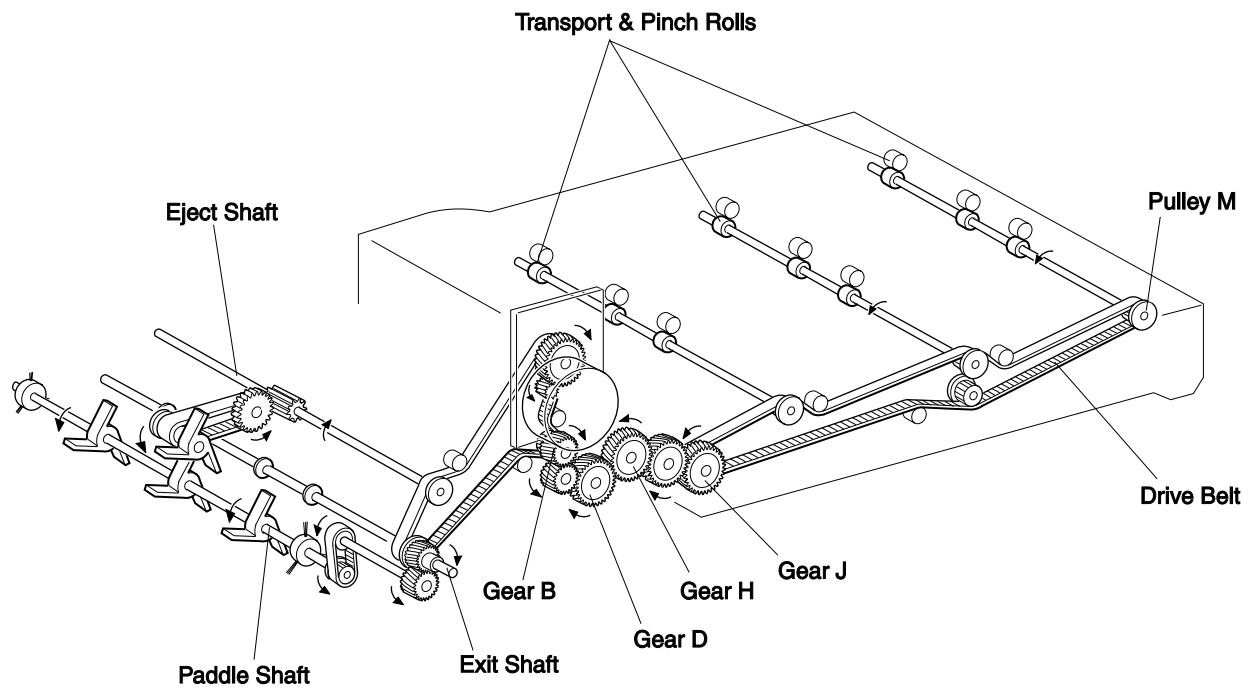
Transmits Motor drive from Transport Pulley J to Transport Pulley K, Pulley L, and Pulley M.

4. Transport Pulley K, Pulley L, and Pulley M

Each Pulley is attached to the end of the Transport Rolls. The Drive Belt rotates each Pulley and each Pulley in turn rotates a Transport Roll.

5. Compiler Transport Drive Belt

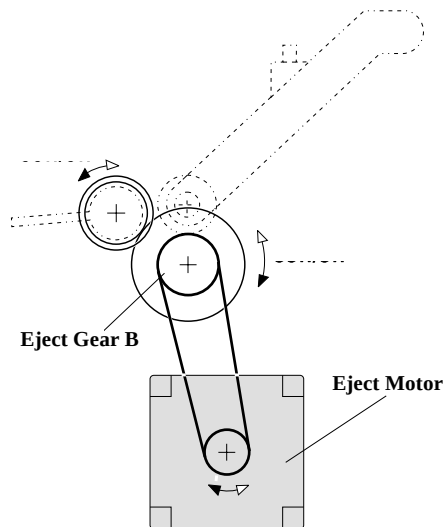
Transmits Transport Motor drive to Gear B, the Eject Shaft, and the Paddle Shaft.



SR1517X

2- Eject Motor

The Finisher PWB switches the Eject Motor clockwise to Eject paper into a Stacker Tray. The Finisher PWB switches the Eject Motor counter clockwise to drive the paper back into the Compiler Tray. The Eject Motor Drive Belt transmits drive from the Motor to Eject Gear B. Gear B drives Eject Shaft 2. Eject Shaft 2 drives Eject Shaft 1.



SR1525X

Compiler Mechanical Drive Components

1. Eject Motor

A +24 VDC stepper motor. Provides forward and reverse drive for the Eject Roll.

2. Eject Motor Drive Belt

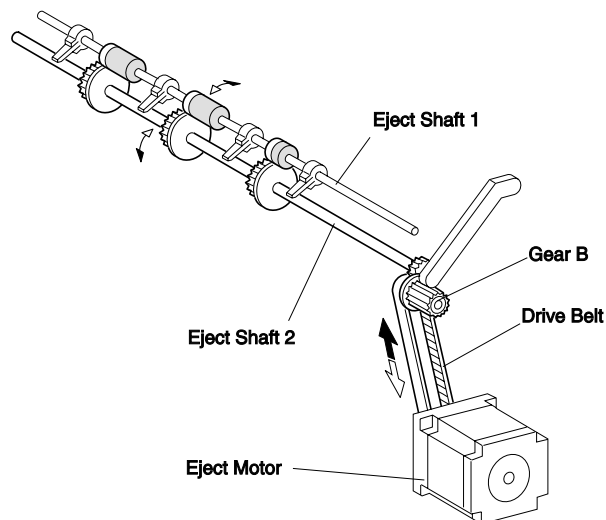
Transmits Motor drive from the Eject Motor to Eject Gear B.

3. Eject Gear B

Transmits drive to Eject Shaft 2.

4. Eject Shaft 2

Transmits drive to Eject Shaft 1.



SR1524X

3- End Wall Motor

The End Wall Motor raises and lowers the Compiler Tray End Wall. When paper is sent to the Compiler Tray, the Finisher PWB switches on the End Wall Motor. The End Wall Motor raises the End Wall of the Compiler Tray. When a set of paper is collected in the Compiler Tray and the set is ready to be sent to the Stapler, the End Wall Motor lowers the End Wall to allow the paper set to move to the Stapler.

SR1526X

End Wall Mechanical Drive Components

1. End Wall Motor

A +24 VDC stepper motor. Raises and lowers the End Wall.

2. End Wall

Raised to close off the end of the Compiler Tray. Lowered to open the end of the Compiler Tray and allow the paper set to move to the Stapler.

4- Tamper Motor

The Finisher PWB switches on the Tamper Motor when a paper set is in the Compiler Tray is ready to be sent to the Stapler. The Tamper is attached to the Tamper Drive Belt. When the Tamper Motor is switched on, it pulses, which in turn taps the tamper against the side of the paper set. The Tamper Home Sensor monitors the position of the Tamper.

SR1527X

Tamper Mechanical Drive Components

1. Tamper Motor

A +24 VDC stepper motor. Drives the Tamper.

2. Tamper Drive Belt

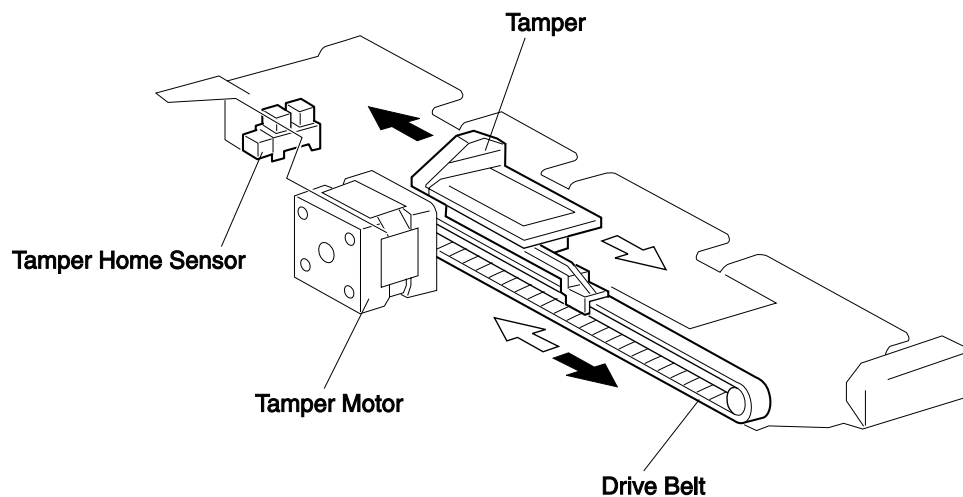
Drives the Tamper.

3. Tamper

Attached to the Drive Belt. The side of the Tamper taps the edge of the paper set to align the set before stapling.

4. Tamper Home Sensor

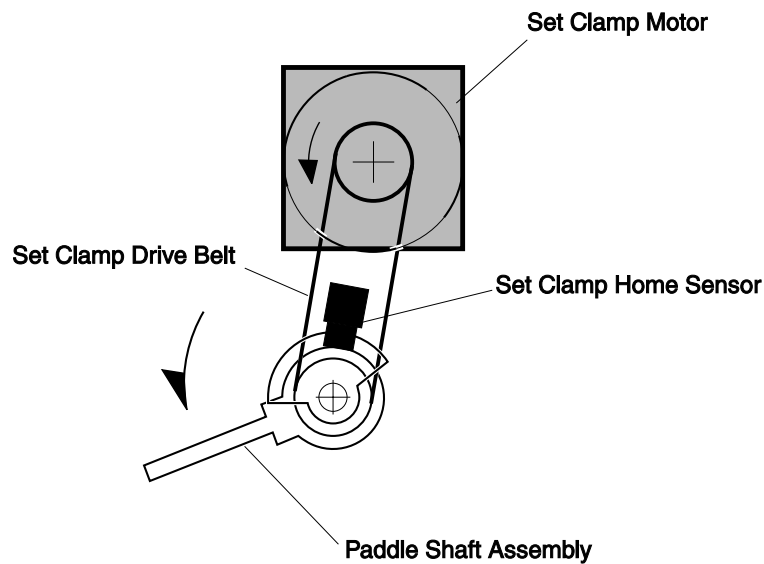
Monitors the position of the Tamper when it is not actuated.



SR1528X

5- Set Clamp Motor

The Finisher PWB switches on the Set Clamp Motor. The Set Clamp Drive Belt transmits drive to the Paddle Shaft Assembly. Paddles on the Assembly drive a stapled set of paper into a Stacker Tray. The Set Clamp Home Sensor monitors the home position of the Paddle Assembly.



SR1529X

Set Clamp Mechanical Drive Components

1. Set Clamp Motor

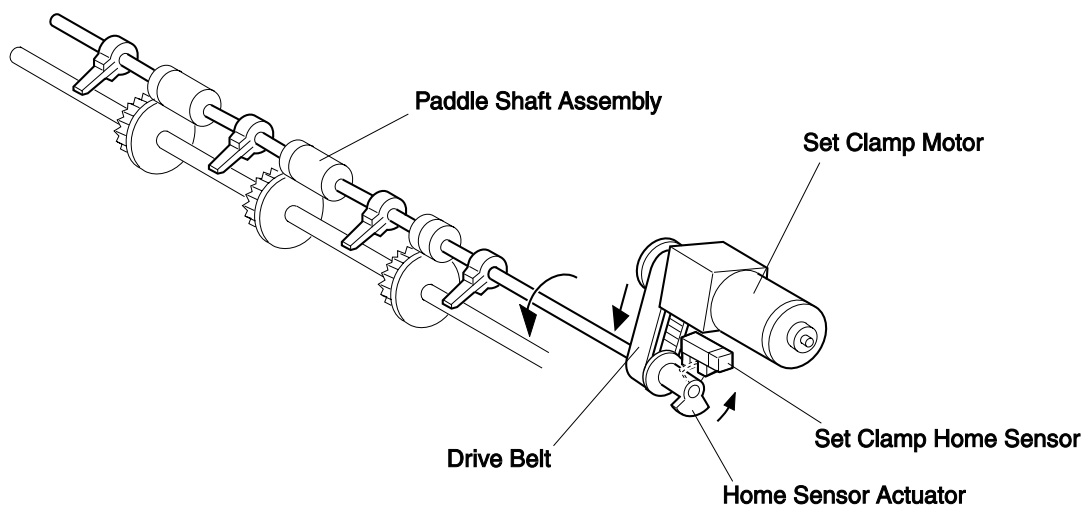
A +24 VDC motor. Provides drive for the Paddle Shaft Assembly.

2. Set Clamp Motor Drive Belt

Transmits Set Clamp Motor drive to the Paddle Shaft Assembly.

3. Set Clamp Home Position

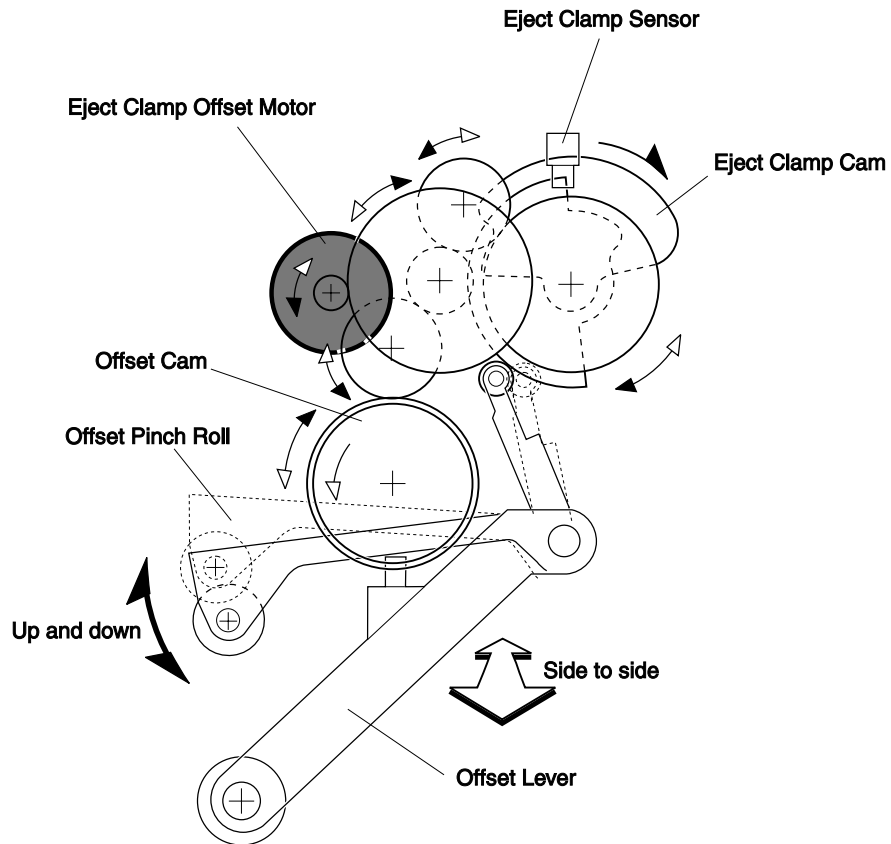
Monitors the home position of the Paddle Assembly.



SR1530X

6- Offset Motor

The Eject Clamp Offset Motor drives the Offset Cam. As the Cam rotates, the high and low points of the Cam drive the Offset Rolls back and forth across the paper path. The Eject Clamp Offset Motor also drives the Eject Clamp Cam. As the Cam rotates, the high and low points of the Cam drive the Offset Pinch Rolls up and down.



SR1531X

Offset Mechanical Drive Components

1. Eject Clamp Offset Motor

A +24 VDC motor. Provides drive for both the Offset Pinch Rolls and the Offset Rolls.

2. Offset Cam

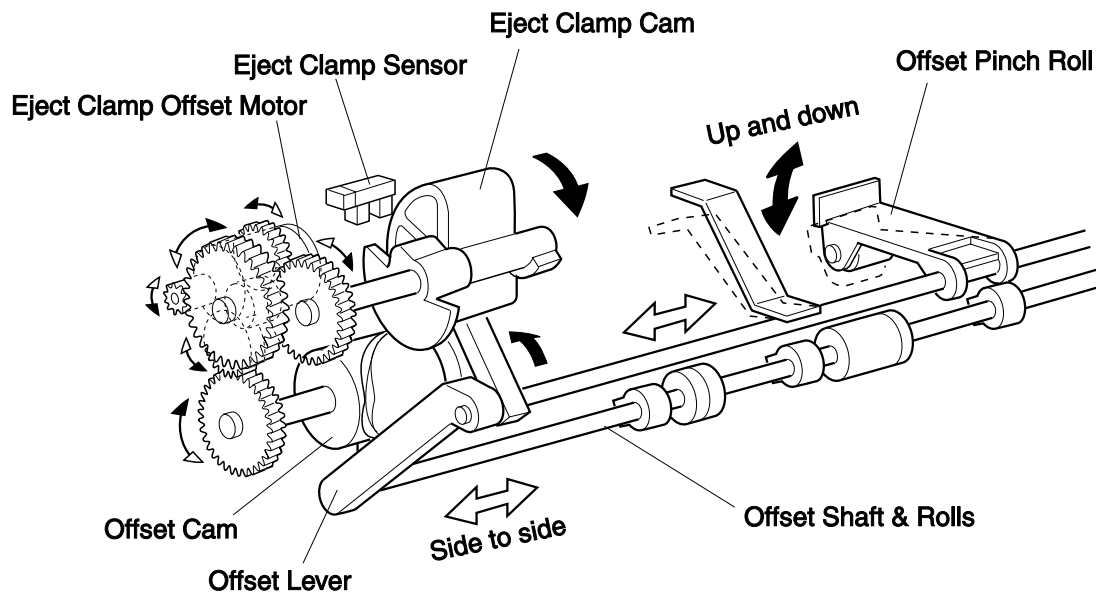
Driven by the Eject Clamp Offset Motor. As the cam rotates, the high and low points slide the Offset Rolls across the paper path.

3. Eject Clamp Cam

Driven by the Eject Clamp Offset Motor. As the cam rotates, the high and low points move the Offset Pinch Rolls up and down.

4. Eject Clamp Sensor

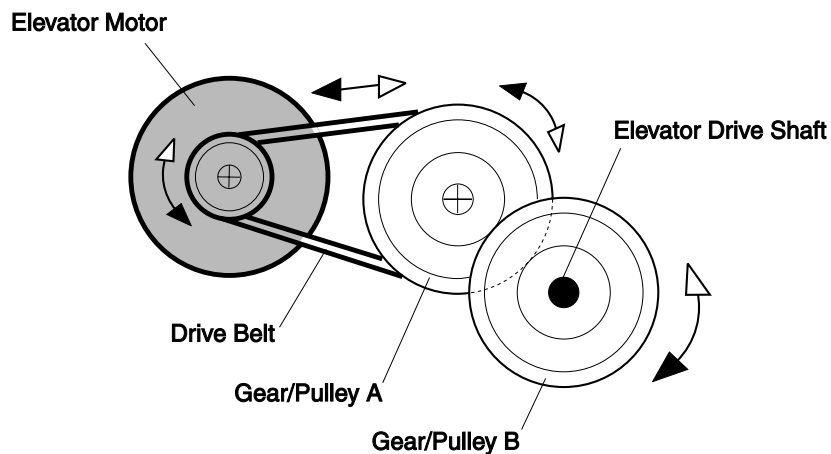
Monitors the position of the Eject Clamp Cam.



SR1532X

7- Stacker Elevator Motor

The Elevator Motor provides the drive needed to raise and lower the three Stacker Trays. The Elevator Drive Belt transmits drive to Gear/Pulley A, which in turn transmits drive to Gear/Pulley B. The threaded Elevator Drive Shaft is attached to the center of Gear/Pulley B. When the Finisher PWB switches on the Elevator Motor, the three Stacker Trays ride up and down on the Shaft.



SR1533X

Stacker Elevator Mechanical Drive Components

1. Stacker Elevator Motor

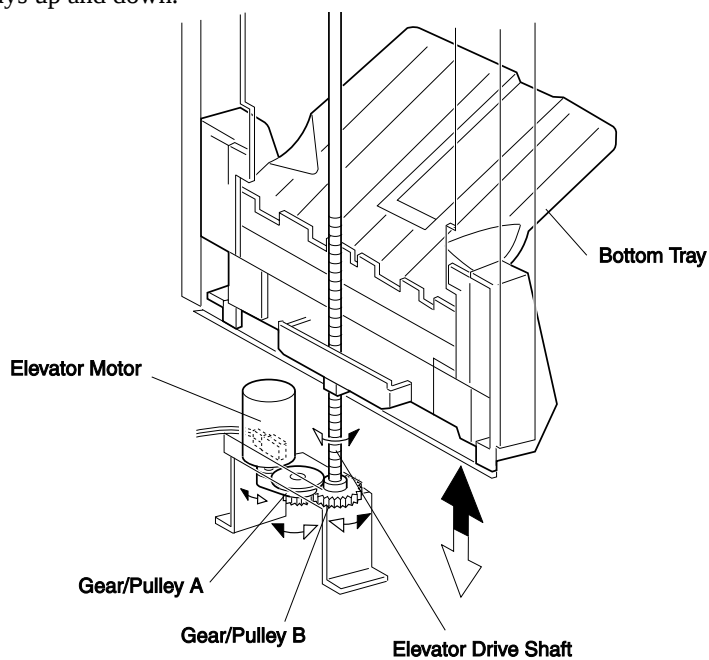
A +24 VDC motor. Provides drive to rotate the Elevator Drive Shaft.

2. Elevator Drive Belt

Transmits drive from the Motor to Gear/Pulley A.

3. Elevator Drive Shaft

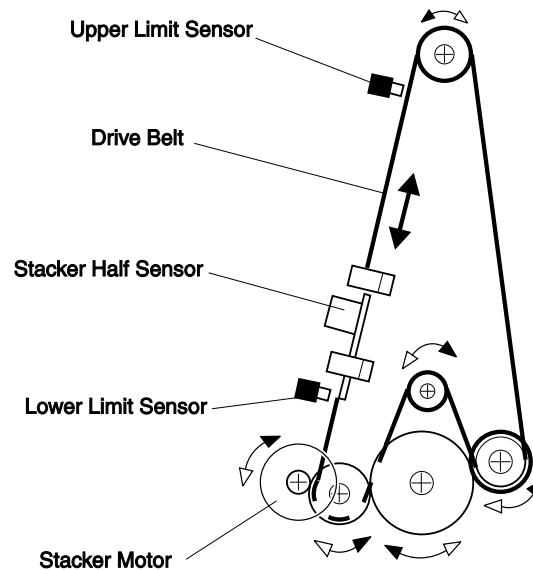
A threaded, metal rod that is attached, at the bottom of the Shaft, to Gear/Pulley A. The three Stacker Trays are attached to the Shaft through threaded nuts that are attached to the rear of each Tray. As the Shaft rotates, the threads in the shaft drive the Trays up and down.



SR1534X

8- Tray Motors

Each Stacker Tray has a separate Motor that raises or lowers the Tray Stacker to accommodate the amount of paper sent to the Tray. The Tray Stacker is attached to the Drive Belt. As the Belt rotates, the Tray Stacker raises or lowers depending on the direction of Belt rotation. Sensors monitor the upper and lower limits of Tray Stacker height.



SR1535X

Tray Motors Mechanical Drive Components

1. Tray Motor

A +24 VDC motor. Provides drive for both the Stacker Tray of each HCS Paper Tray.

2. Tray Motor Drive Belt

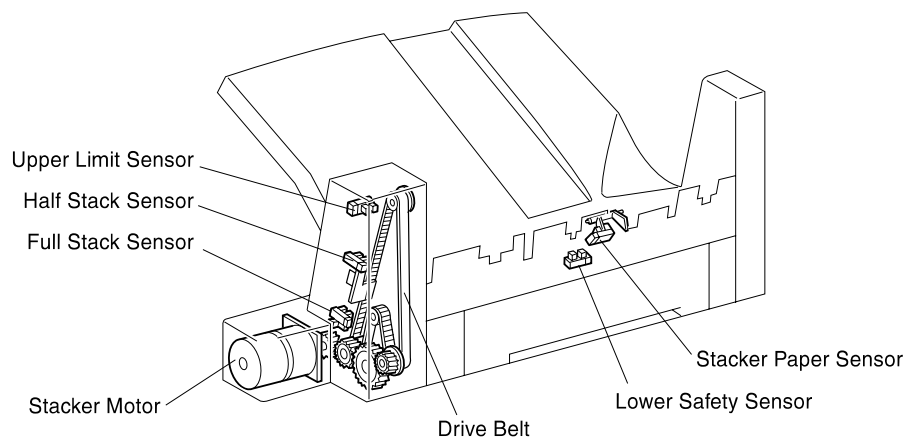
Rotates as the Motor rotates.

3. Lower Limit Sensor

Monitors when the Stacker Tray has reached the lowest point that it can safely travel.

4. Upper Limit Sensor

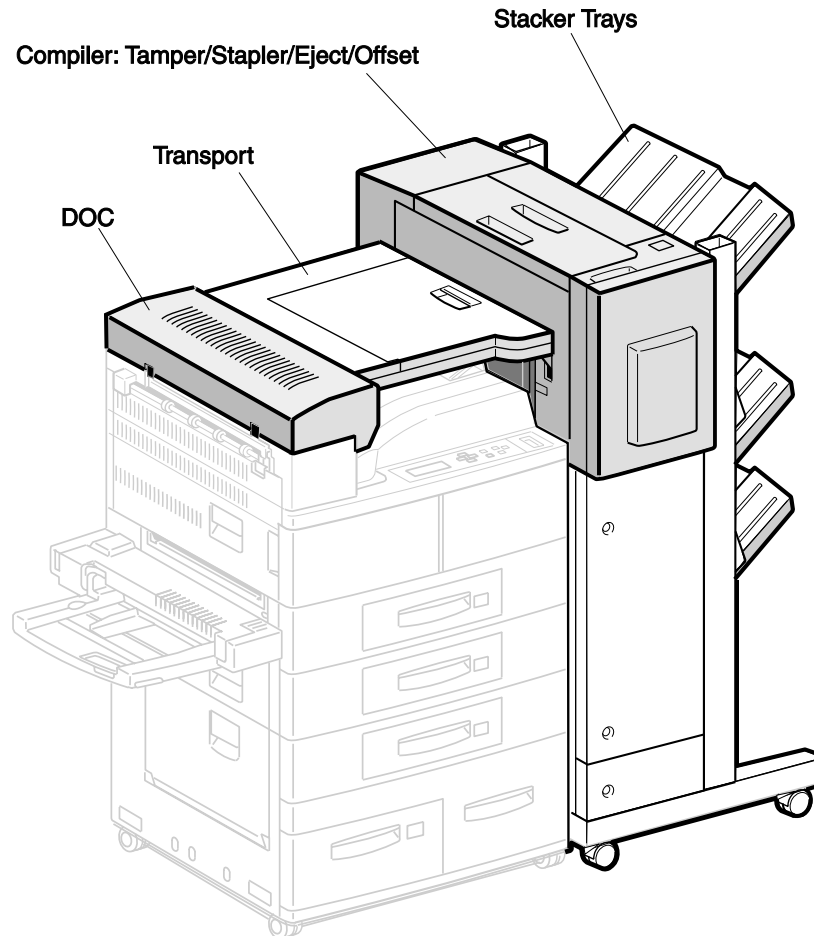
Monitors when the Stacker Tray has reached the highest point that it can safely travel.



SR1536XA

4 - The High Capacity Stacker Paper Path

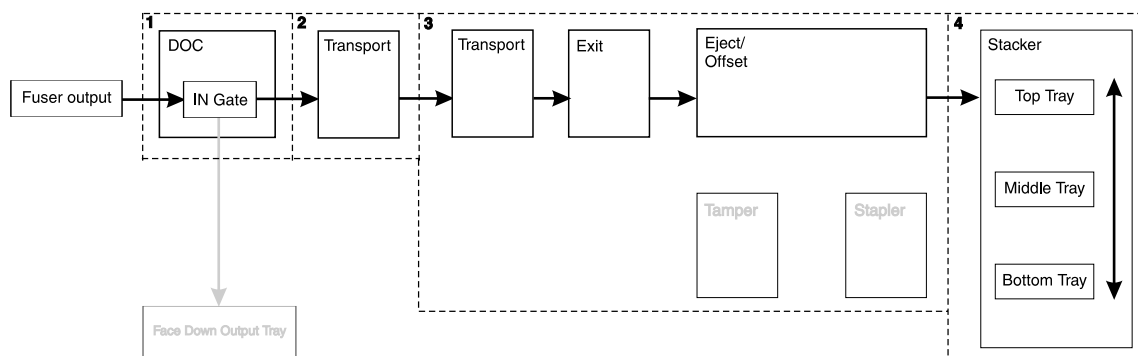
The High Capacity Stacker paper path is the physical route that paper takes through the HCS, from leaving the base engine to arriving at an HCS tray. Paper traveling through the HCS moves through each of the four major sections; the DOC, the Transport, the Compiler: Tamper/Stapler/Eject/Offset, and the Stacker Trays. The HCS has two user selectable modes of operation; **Paper to be Stacked** and **Paper to be Stapled and Stacked**.



SR1502X

Paper Path for Paper to be Stacked

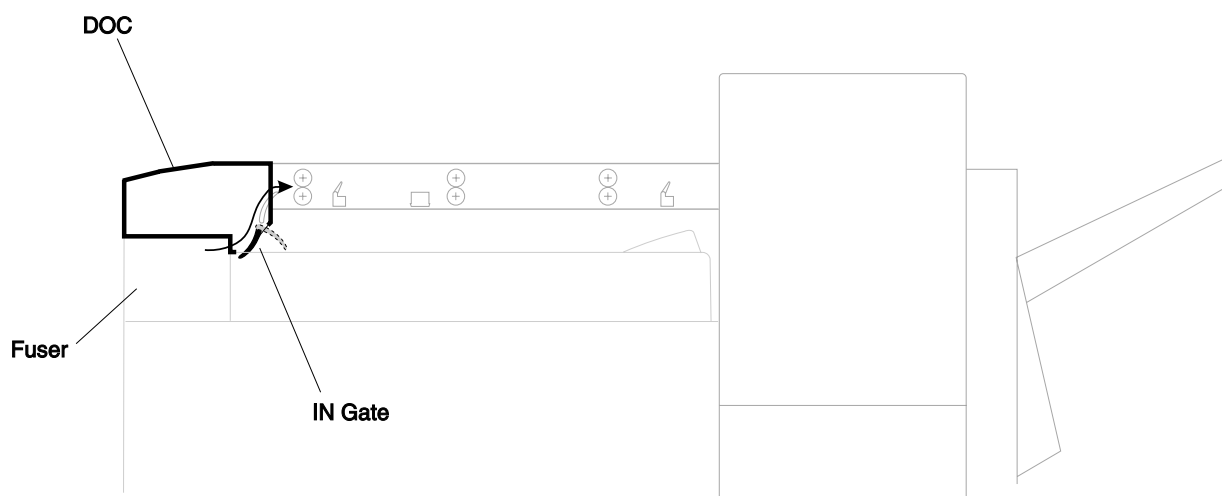
If the paper exiting the printer is destined for the HCS, the **IN Gate** in the **DOC** drops down and diverts the paper into the **Transport**. If the paper exiting the printer is not destined for the HCS, the **IN Gate** remains up and the paper continues on into the Face Down Tray. The Transport carries the paper to the Compiler where Transport Rolls move the paper into the **Exit area**. The Exit area uses rolls and rubber paddles to move the paper into the **Eject area**. The **Eject Rolls** move the paper into the **Stacker**. The Stacker has three trays. An elevator moves the trays up and down, presently the correct tray to the Eject Rolls.



SR1500X

1- DOC

The DOC sits on top of the printer Fuser Exit area. The DOC contains the **IN Gate**. The IN Gate diverts the paper path from the Face Up Tray to the HCS. When the HCS is the designated output of a print run, the Finisher PWB actuates the **IN Gate Solenoid**, which is located in the Transport section of the HCS. The IN Gate Solenoid lowers the IN Gate which diverts the paper path into the HCS Transport Assembly.



SR1503X

DOC Paper Path Components

1. IN Gate

Normally up. The IN Gate Solenoid lowers the IN Gate to divert paper into the HCS Transport.

2. Upper Chute

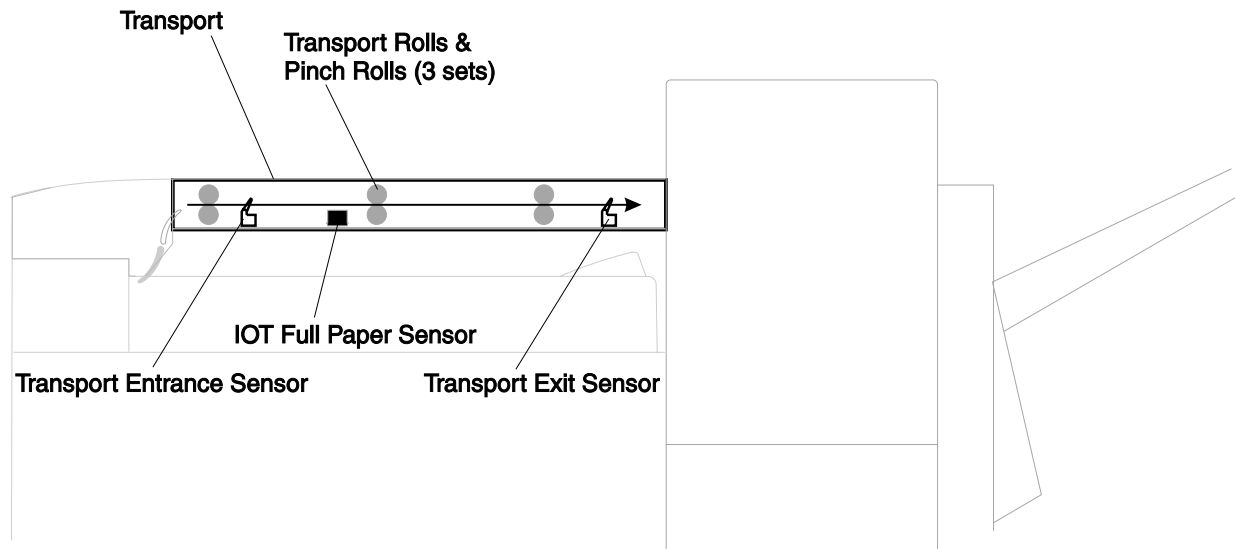
Helps direct the paper into the Transport Rolls.

3. IN Gate Solenoid

Controlled by the Finisher PWB, the IN Gate Solenoid raises and lowers the IN Gate. The IN Gate Solenoid is located in the Transport, and is attached to the IN Gate through the IN Gate Link.

2- Transport

After the IN Gate diverts paper into the HCS Transport, three sets of **Transport Rolls** drive the paper through the Transport Assembly and into the **Compiler**. The **Transport Entrance Sensor** and **Transport Exit Sensor** monitor paper movement within the Transport Assembly.



SR1515X

Transport Paper Path Components

1. Transport Rolls and Pinch Rolls (3 sets)

Drives paper into the Compiler.

2. Transport Entrance Sensor

Monitors paper entering the Transport.

3. Transport Exit Sensor

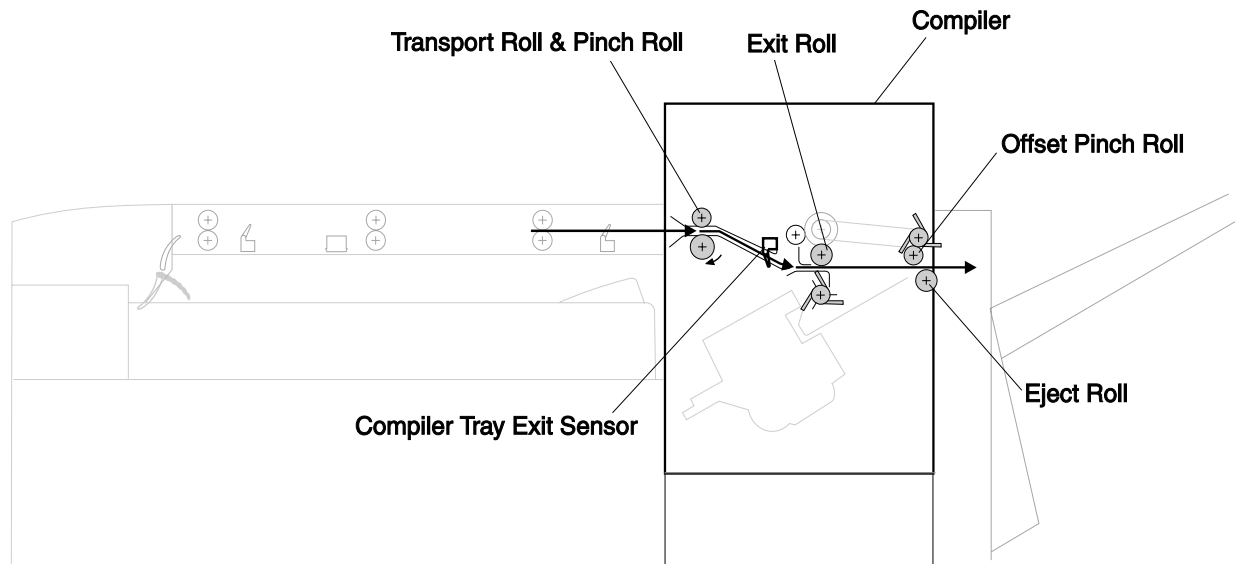
Monitors paper leaving the Transport.

4. IOT Full Paper Sensor

Monitors the paper level in the base engine Face Down Output Tray. When the HCS is installed, this sensor replaces the function of the base engine Full Stack Sensor.

3- Exit/Eject

The **Transport Rolls** within the Compiler continue driving the paper out of Transport Chute. The trail edge of the paper deactuates the **Transport Exit Sensor**. The Compiler Transport Rolls drive the paper further into the **Compiler** where the leading edge of the paper actuates the **Compiler Tray Exit Sensor**. The **Exit Rolls and Paddle Assembly** drive the paper to the **Eject Roll**. The Eject Roll and **Paddle Assembly** drive the paper out into a **Stacker Tray**.



SR1518x

Exit/Eject Paper Path Components

1. Transport Rolls and Pinch Rolls

Drives paper through the Compiler.

2. Compiler Tray Exit Sensor

Monitors paper entering and leaving the Compiler entrance.

3. Exit Roll and Paddle Assembly

Drives paper to the Offset/Eject Rolls.

4. Eject Roll and Paddle Assembly

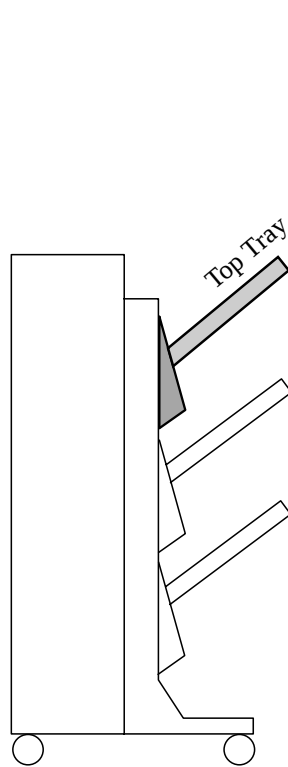
Drive paper into a Stacker Tray.

5. Offset Pinch Roll

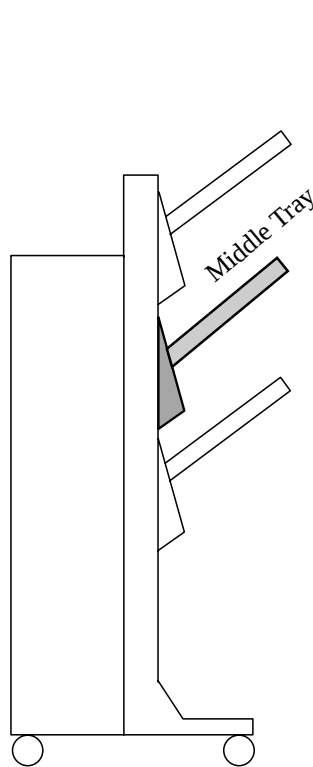
Shifts the exiting sheet of paper so each sheet of paper entering the Stacker Tray is offset slightly from the previous sheet.

4- Stacker Trays

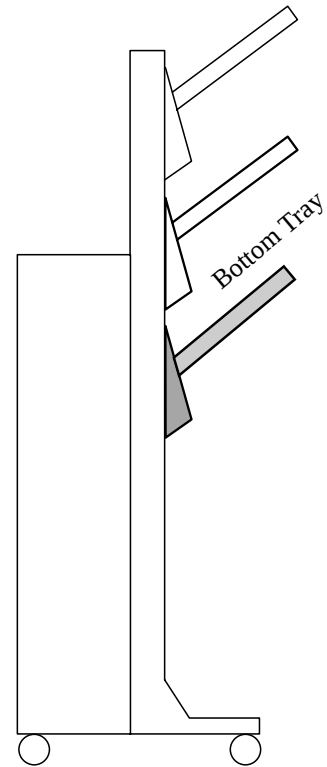
The Eject Roll and **Paddle Assembly** drive the paper out into a **Stacker Tray**. The **Stacker Elevator** raises or lowers the Stacker so one of the three trays is opposite the Eject Rolls. An **ID Sensor** informs the Finisher PWB when the selected tray is in position. Sensors monitor the level of paper in each tray. Motors in each of the three trays lower each tray as that tray starts to fill with paper.



SR1512X



SR1513X



SR1514X

Offset Paper Path Components

1. Top, Middle, and Bottom Trays

Raised or lowered as a unit. The selected Tray stops in front of the Eject Rolls.

2. Stacker Motors for the Top, Middle, and Bottom Trays

Raises or lowers each Tray to accommodate the amount of paper ejected into the Tray.

3. Stacker Paper Sensors for the Top, Middle, and Bottom Trays

Monitors the presence of paper in each Tray.

4. Stacker Full Sensors for the Top, Middle, and Bottom Trays

Monitors when each Tray is 100% full.

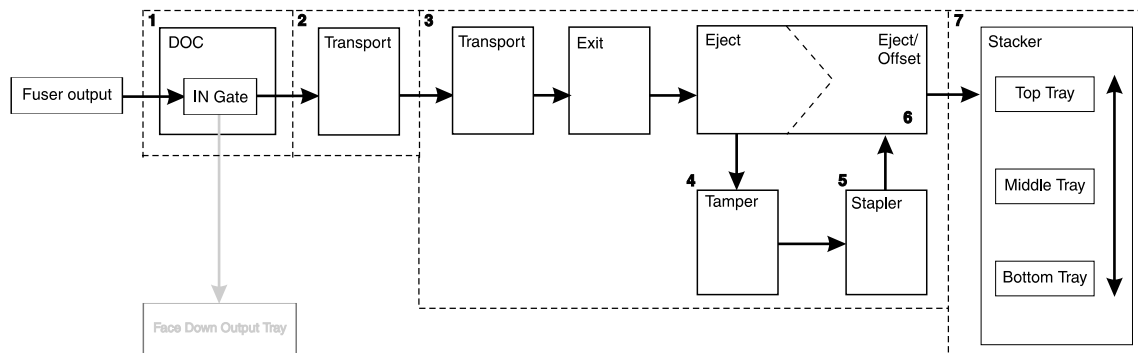
5. Stacker Half Full Sensors for the Top, Middle, and Bottom Trays

Monitors when each Tray is 50% full.

Paper Path for Paper to be Stapled and Stacked

Paper leaves the Fuser Exit area and enters the **DOC**. If the paper exiting the printer is destined for the HCS, the **IN Gate** drops down and diverts the paper into the **Transport**. If the paper exiting the printer is not destined for the HCS, the **IN Gate** remains up and the paper continues on into the Face Down Tray.

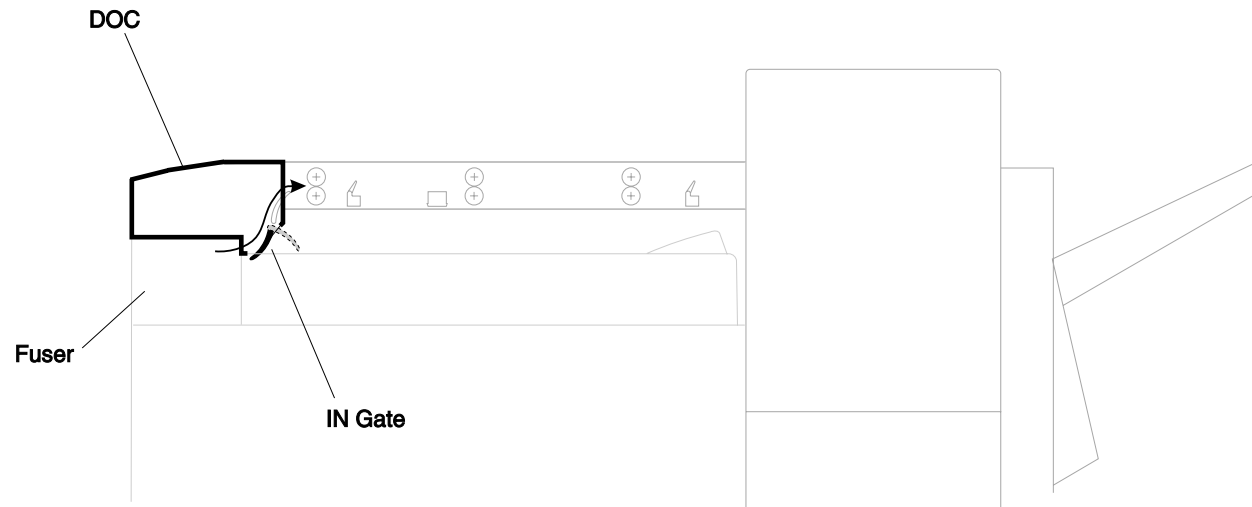
The Transport carries the paper to the **Transport Chute** where Transport Rolls move the paper into the **Exit Chute**. The Exit Chute uses Rolls and rubber paddles to move the paper into the **Eject** area. If the paper is to be collected into sets and stapled, the Eject Rolls rotate in reverse and drive the paper back into the Compiler Tray. When the correct number of sheets has entered the Tray, the **Tamper** aligns the edges of the paper sheets to form a neat paper set. The **Stapler** then drives a staple through the set. The Eject Rolls drive the paper set out of the Stapler and into the **Offset Rolls**. The Offset Rolls shift each paper set slightly from the previous set as they are delivered into the Stacker Tray.



SR1501X

1- DOC

The DOC sits on top of the printer Fuser Exit area. The DOC contains the **IN Gate**. The IN Gate diverts the paper path from the Face Up Tray to the HCS. When the HCS is the designated output of a print run, the Finisher PWB actuates the **IN Gate Solenoid**, which is located in the Transport section of the HCS. The IN Gate Solenoid lowers the IN Gate which diverts the paper path into the HCS Transport Assembly.



SR1503X

DOC Paper Path Components

1. IN Gate

Normally up. The IN Gate Solenoid lowers the IN Gate to divert paper into the HCS Transport.

2. Upper Chute

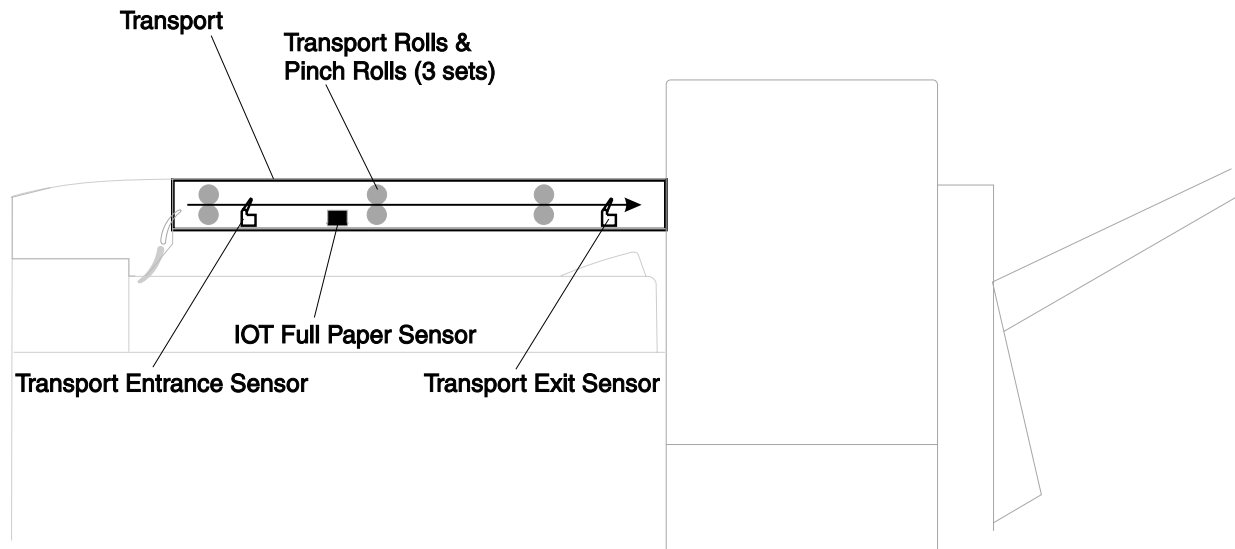
Helps direct the paper into the Transport Rolls.

3. IN Gate Solenoid

Controlled by the Finisher PWB, the IN Gate Solenoid raises and lowers the IN Gate. The IN Gate Solenoid is located in the Transport, and is attached to the IN Gate through the IN Gate Link.

2- Transport

After the IN Gate diverts paper into the HCS Transport, three sets of **Transport Pinch Rolls** drive the paper through the Transport Assembly and into the **Compiler**. The **Transport Entrance Sensor** and **Transport Exit Sensor** monitor paper movement within the Transport Assembly.



SR1515X

Transport Paper Path Components

1. Transport Rolls and Pinch Rolls (3 sets)

Drives paper into the Compiler.

2. Transport Entrance Sensor

Monitors paper entering the Transport.

3. Transport Exit Sensor

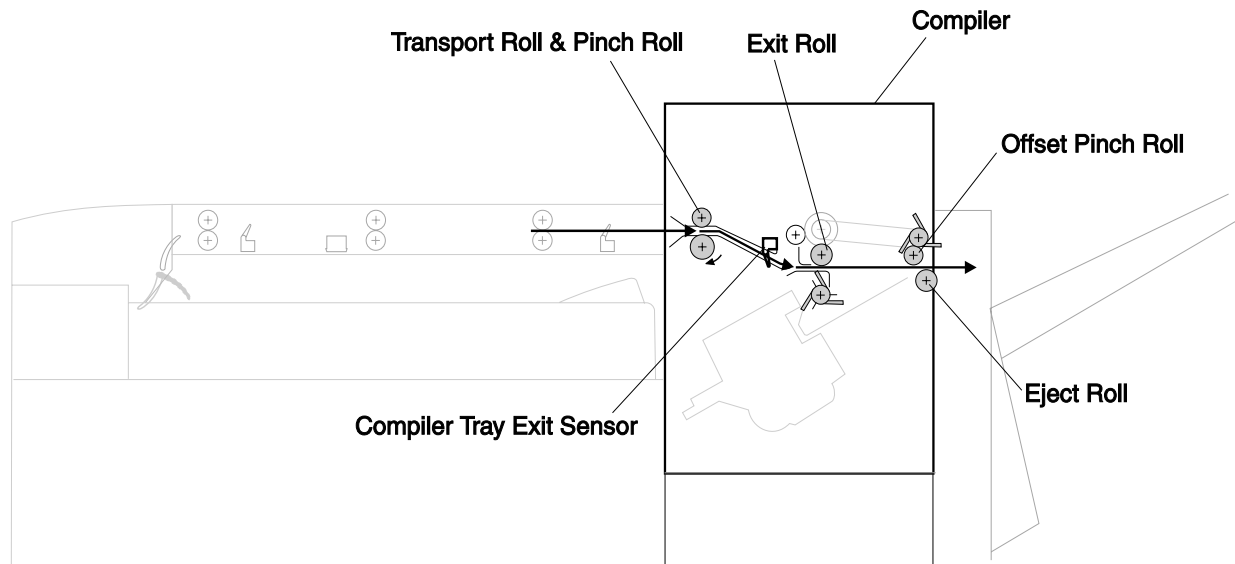
Monitors paper leaving the Transport.

4. IOT Full Paper Sensor

Monitors the paper level in the base engine Face Down Output Tray. When the HCS is installed, this sensor replaces the function of the Full Stack Sensor.

3- Exit/Eject

The **Transport Rolls** within the Compiler continue driving the paper out of Transport. The trail edge of the paper deactuates the **Transport Exit Sensor**. The Compiler Transport Rolls drive the paper further into the **Compiler** where the leading edge of the paper actuates the **Compiler Tray Exit Sensor**. The **Exit Rolls and Paddle Assembly** drive the paper to the **Eject Roll**. The Eject Motor begins rotating counter clockwise and reverses the Eject Roll direction. The sheet of paper is driven back into the Compiler Tray.



SR1518x

Exit/Eject Paper Path Components

1. Transport Rolls and Pinch Rolls

Drives paper through the Compiler.

2. Compiler Tray Exit Sensor

Monitors paper entering and leaving the Compiler Tray.

3. Exit Roll and Paddle Assembly

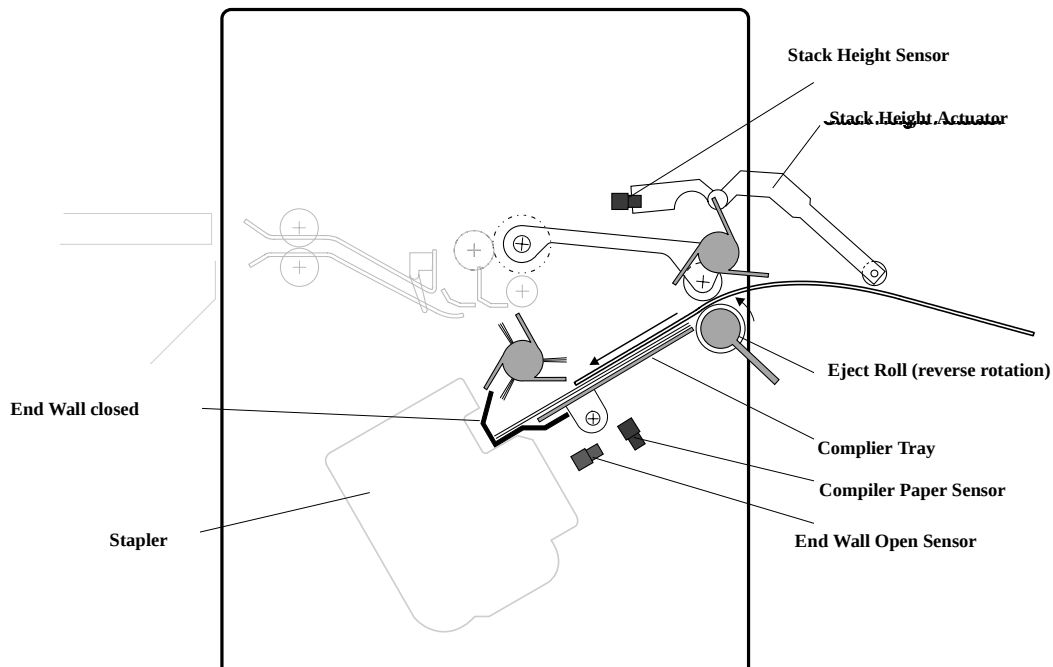
Drives paper to the Offset/Eject Rolls.

4. Eject Roll and Paddle Assembly

Drives paper into a Stacker Tray. When paper is to be collected into sets and stapled, the Eject Roll rotates in reverse and drives the sheet of paper into the Compiler Tray.

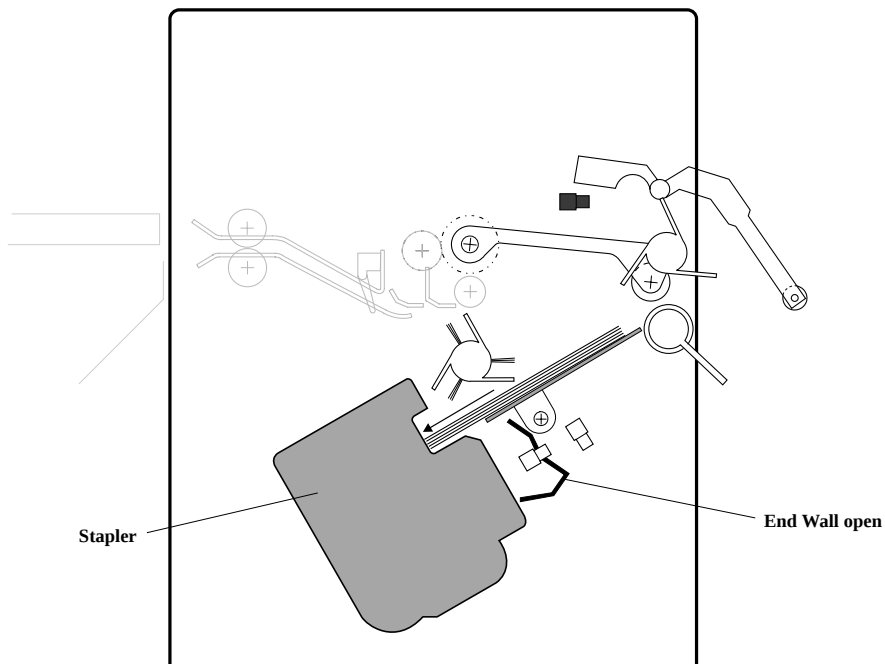
4- Compiler/Tamper

The Eject Roll reverses rotation and drives the sheet of paper back into the **Compiler Tray**. A motor raises the **End Wall** to block the end of the Compiler Tray. When a set of paper (maximum of 25 sheets) is transported to the Compiler Tray, the **Tamper** taps the side of the paper to square up the set.



SR1520X

A motor lowers the End Wall and the **Compiler Tray Solenoid** tilts the Tray, causing the paper set to move into the Stapler.



SR1521X

Compiler /Tamper Paper Path Components

1. Eject Roll

Dives paper into the Compiler Tray.

2. Compiler Tray

Staging area used to collect sheets of paper into sets for stapling.

3. End Wall

Closes the end of the Compiler Tray so paper can be collected into sets. Is moved out of the way when the set is ready to be sent to the Stapler.

4. End Wall Motor

Moves the End Wall into position or out of the way.

5. Tamper

Taps the sides of the paper set to square up the edges before stapling.

6. Compiler Tray Solenoid

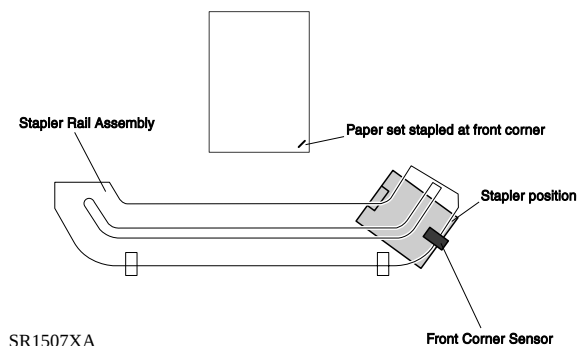
Tilts the Compiler Tray so the paper set slides into the Stapler.

5- Stapler

The Stapler Motor slides the Stapler Unit along a fixed rail. Sensors along the rail monitor the position of the Stapler Unit. The Stapler Move Motor pulses a set number of times to slide the Stapler Unit to various points along the rail. The points correspond to the various locations for stapling the specific paper size that is currently in the Compiler Tray. Once the stapler is in position it drives a single staple into the paper set.

Front Corner Staple

The Stapler Move Motor slides the Stapler Unit until Unit actuates the Front Corner Sensor. The Stapler Unit drives one staple into the front corner of the paper set.

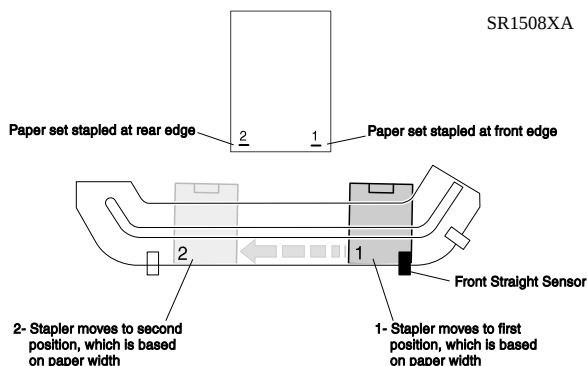


Dual (Front and Rear Edge) Staple

The Stapler Move Motor pulses a set number of times to slide the Stapler Unit the correct distance from the Front Straight Sensor. The Stapler drives the first staple at that location.

The Stapler Move Motor pulses a set number of times to slide the Stapler Unit the correct distance from the Front Straight Sensor. The Stapler drive the second staple at that location.

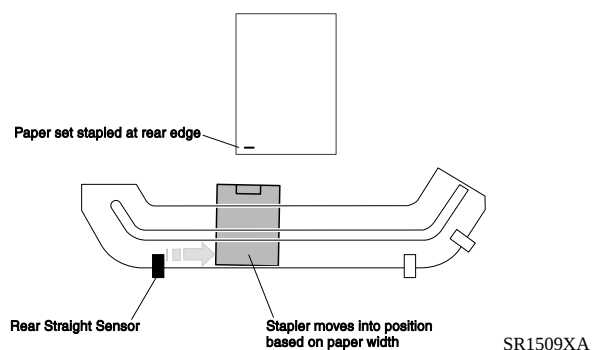
When finished, the Stapler Move Motor slides the Stapler Unit to the Front Corner Sensor.



Rear Edge Staple

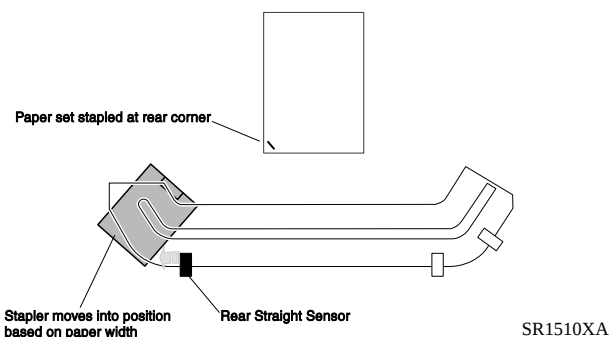
The Stapler Move Motor slides the Stapler Unit to the Rear Straight Sensor. The Motor then pulses a set number of times to slide the Stapler Unit the correct distance from the Rear Straight Sensor. The Stapler drives the first staple at that location.

When finished, the Stapler Move Motor slides the Stapler Unit to the Front Corner Sensor.



Front Corner Staple

The Stapler Move Motor slides the Stapler Unit until Unit actuates the Front Corner Sensor. The Stapler Unit drives one staple into the front corner of the paper set.



Stapler Paper Path Components

1. Stapler Front Corner Sensor

Marks the position of the Stapler Unit for stapling in the front corner of a paper set.

2. Stapler Front Straight Sensor

Marks the position of the Stapler Unit so the Move Motor can shift the Stapler to the correct positions for stapling at the front and rear edges of a paper set.

3. Stapler Rear Straight Sensor

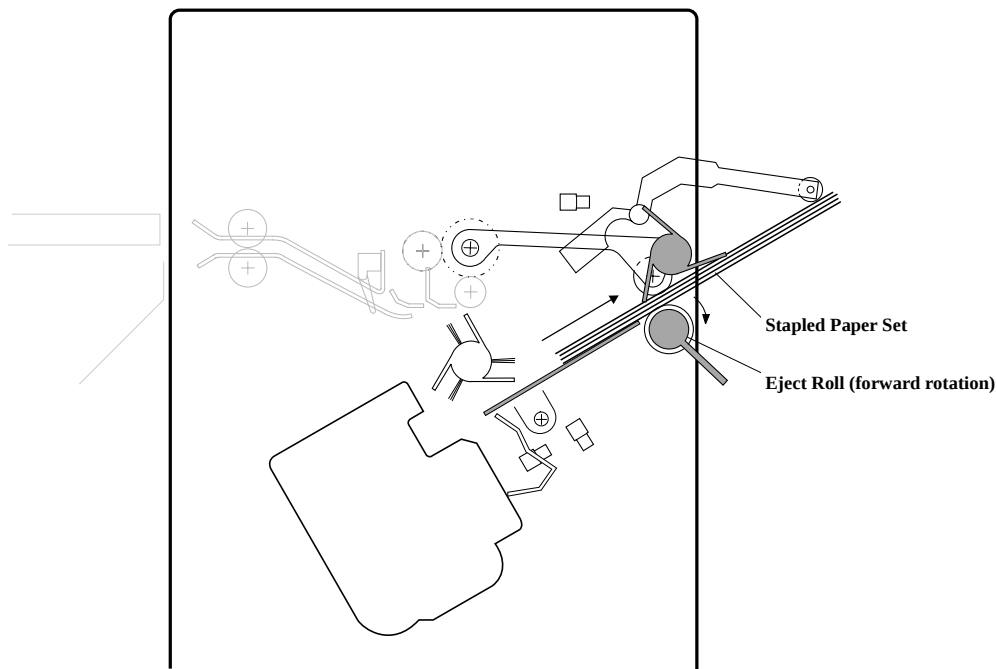
Marks the position of the Stapler Unit so the Move Motor can shift the Stapler to the correct position for stapling at the rear corner of a paper set.

4. Stapler Assembly

Contains the Stapler Head and Stapler Cartridge.

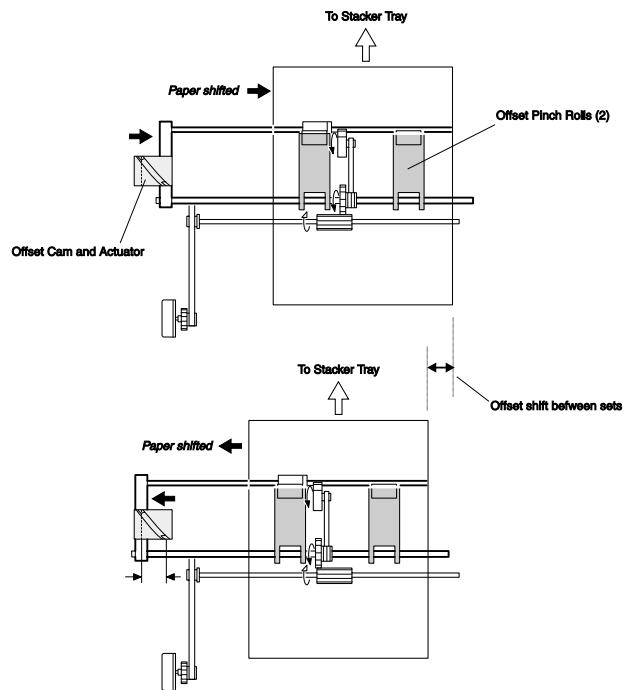
6- Eject/Offset

After the set is stapled, the Eject Roll rotates clockwise and drives the set out of the Compiler Tray and toward the Offset Rolls.



SR1522X

A cam and gear set shift the Offset Pinch Rolls and Paddle Assembly back and forth across the Eject paper path, shifting the exiting sheet of paper so each sheet of paper entering the Stacker Tray is offset slightly from the previous sheet.



SR1523X

Eject/Offset Paper Path Components

1. Offset Pinch Roll Assembly

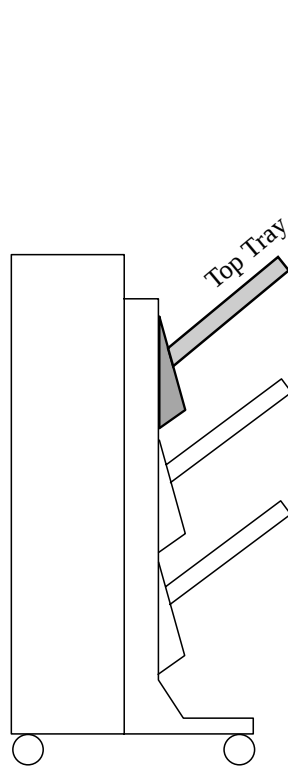
Shifts alternate paper sets back and forth so they are offset as they stack in the paper tray.

2. Offset Pinch Roll Assembly

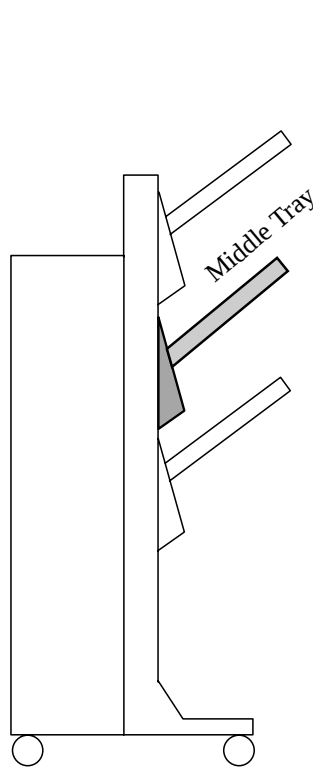
Helps drive paper out of the Compiler Tray and into the Stacker tray.

7- Stacker Trays

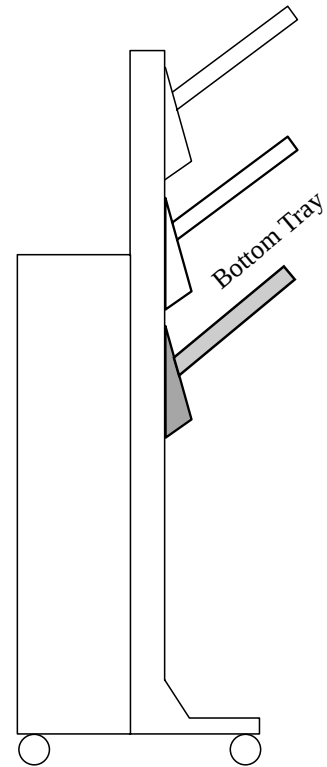
The Eject Roll and **Paddle Assembly** drive the paper out into a **Stacker Tray**. The **Stacker Elevator** raises or lowers the Stacker so one of the three trays is opposite the Eject Rolls. An **ID Sensor** informs the Finisher PWB when the selected tray is in position. Sensors monitor the level of paper in each tray. Motors in each of the three trays lower each tray as that tray starts to fill with paper.



SR1512X



SR1513X



SR1514X

Offset Paper Path Components

1. Top, Middle, and Bottom Trays

Raised or lowered as a unit. The selected Tray stops in front of the Eject Rolls.

2. Stacker Motors for the Top, Middle, and Bottom Trays

Raises or lowers each Tray to accommodate the amount of paper ejected into the Tray.

3. Stacker Paper Sensors for the Top, Middle, and Bottom Trays

Monitors the presence of paper in each Tray.

4. Stacker Full Sensors for the Top, Middle, and Bottom Trays

Monitors when each Tray is 100% full.

5. Stacker Half Full Sensors for the Top, Middle, and Bottom Trays

Monitors when each Tray is 50% full.

Section 10 - Wiring Diagrams and Signal Information

This section of the manual contains a Master Wiring Diagram for the QMS 3260/4032 High Capacity Stacker (HCS). The Master Wiring Diagram shows the interconnections of the major components within the HCS. The remainder of this section divides the Master Wiring Diagram into individual block diagrams (BD) to better illustrate the electrical relationships between components and assemblies within the HCS. Each wire in the diagrams is tagged with a signal name, and each wire is terminated at both ends with a pin number.

Wiring Diagram Notations

The wiring diagrams presented in this manual use the following circuit notations to describe components and signal paths within the printer.

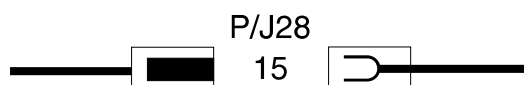
A PLUG



A JACK



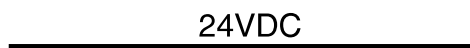
CONNECTION OF PIN 15 OF CONNECTORS P28 AND J28.



THE SIGNAL NAME OF A WIRE



THE VOLTAGE MEASURED WITH THE NEGATIVE PROBE OF THE METER ON SG



THE VOLTAGE VALUE OF A SIGNAL

/ = The voltage goes LOW when the signal is ON.

In this case, the HEAT signal is ON, so the normal voltage of 4.2VDC drops to 0VDC.



SR1400X

SG SIGNAL GROUND

FG FRAME GROUND

RTN RETURN

There is continuity between SG and RTN. Continuity between FG and SG depends on circuit specifications.

\$\$ in a signal name indicates the signal is coming from the MCU CPU.

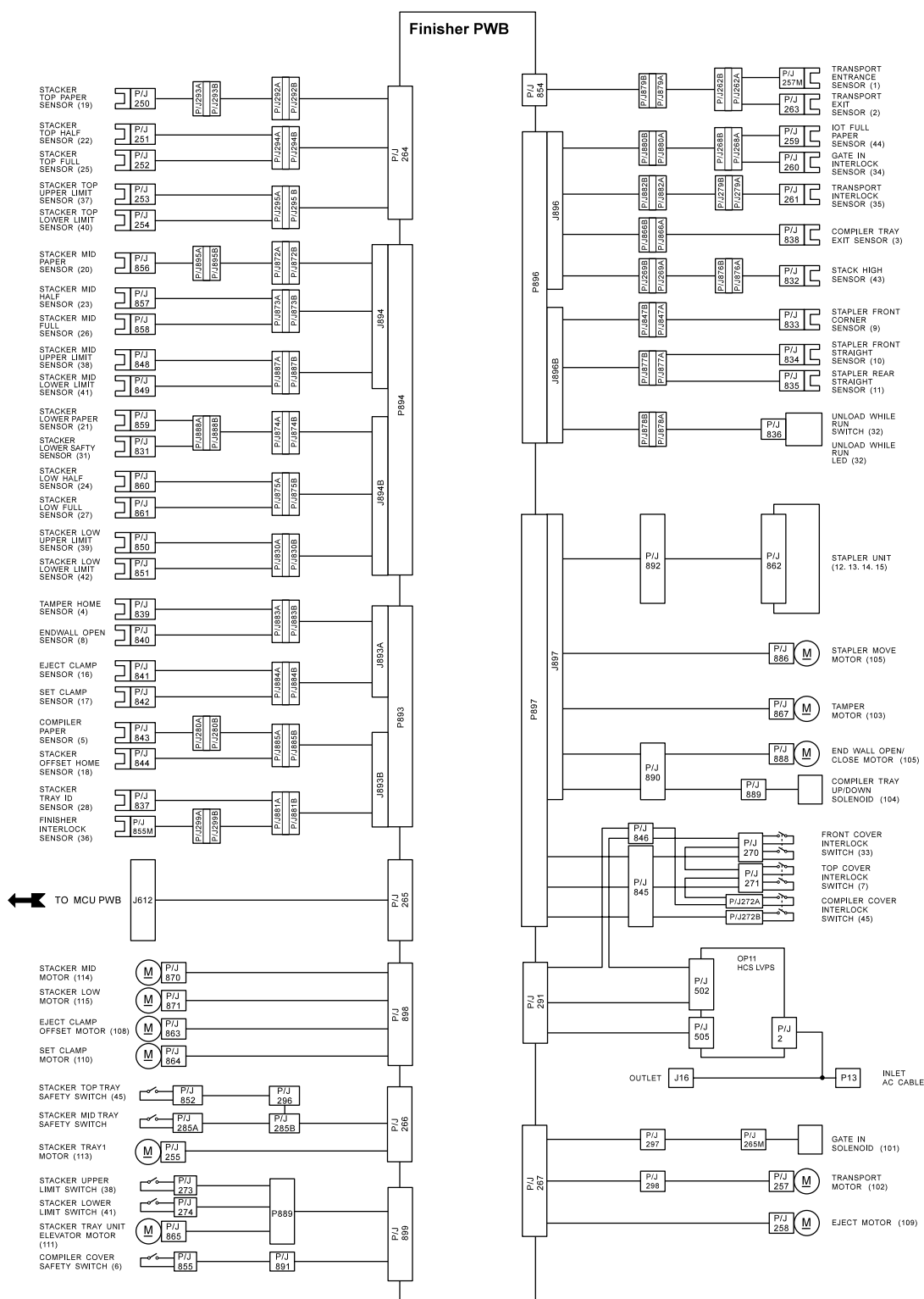
in a signal name indicates the signal is going to the MCU CPU.

TTL TTL displayed in the HIGH level or LOW level columns of the signal tables indicate the signal is ECL_CMOS compatible.

HIGH is 4 to 5 VDC

LOW is 0 to 0.8 VDC

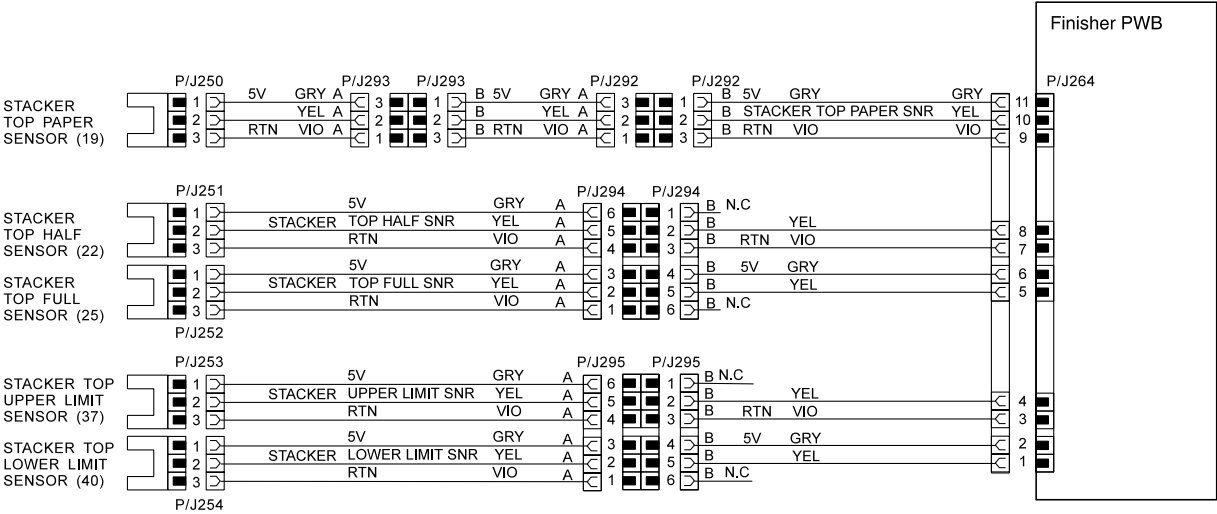
Master Wiring Diagram



SER618XE

SER618XE

BD1 Stacker Top Sensors ` Finisher PWB



SER619XB

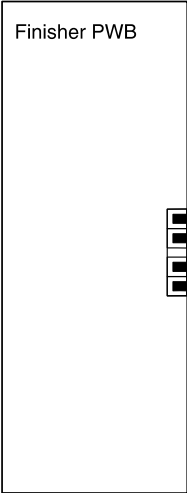
SER619XB

BD1 Stacker Top Sensors ´ Finisher PWB

The following table shows the signal names for the various Stacker Top Sensors to the Finisher PWB:

Signal Name	Description
STACKER TOP PAPER SNR	Monitors paper on the Top Tray. High=Paper present. Low=No paper
STACKER TOP HALF SNR	Monitors paper level in the Top Tray. Low=50% capacity. High=Below 50% capacity.
STACKER TOP FULL SNR	Monitors paper level in the Top Tray. Low=100% capacity (Full). High=Below 100% capacity.
STACKER UPPER LIMIT SNR	Monitors the upper limit of the Top Tray. High=Upper limit reached. Low=Below upper limit.
STACKER LOWER LIMIT SNR	Monitors the lower limit of the top Top. High=Lower limit reached. Low=Above lower limit.

BD2 Transport Entrance and Exit Sensors ´ Finisher PWB



SER620XB

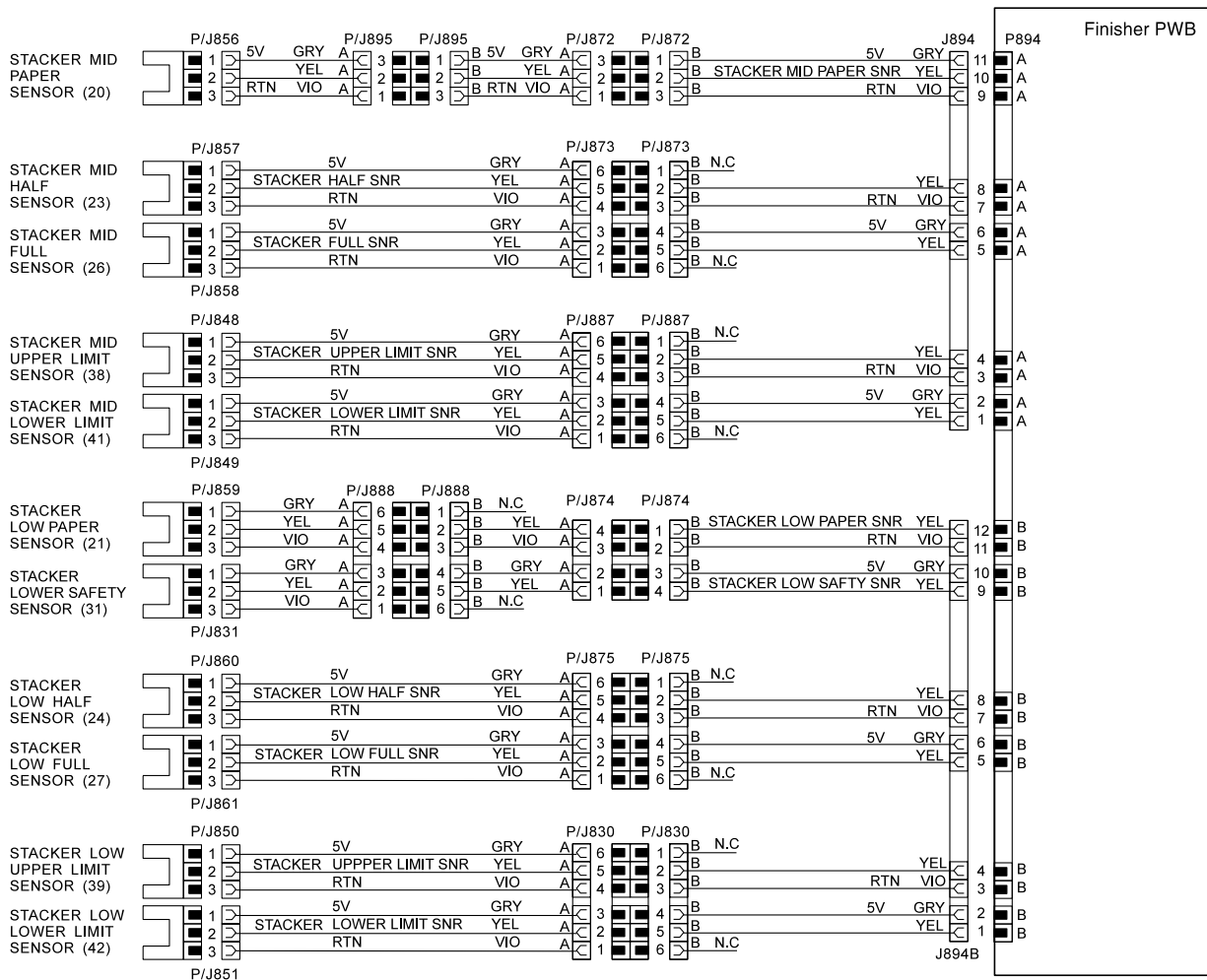
SER620XB

BD2 Transport Entrance and Exit Sensors ´ Finisher PWB

The following table shows the signal names for the Transport Entrance and Exit Sensors to the Finisher PWB:

Signal Name	Description
TRANSPORT ENT SNR	Monitors paper entering the Transport Assembly. High=Paper present. Low=No paper
TRANSPORT EXIT SNR	Monitors paper leaving the Transport Assembly. High=Paper present. Low=No paper

BD3 Stacker Sensors Finisher PWB



SER621XC

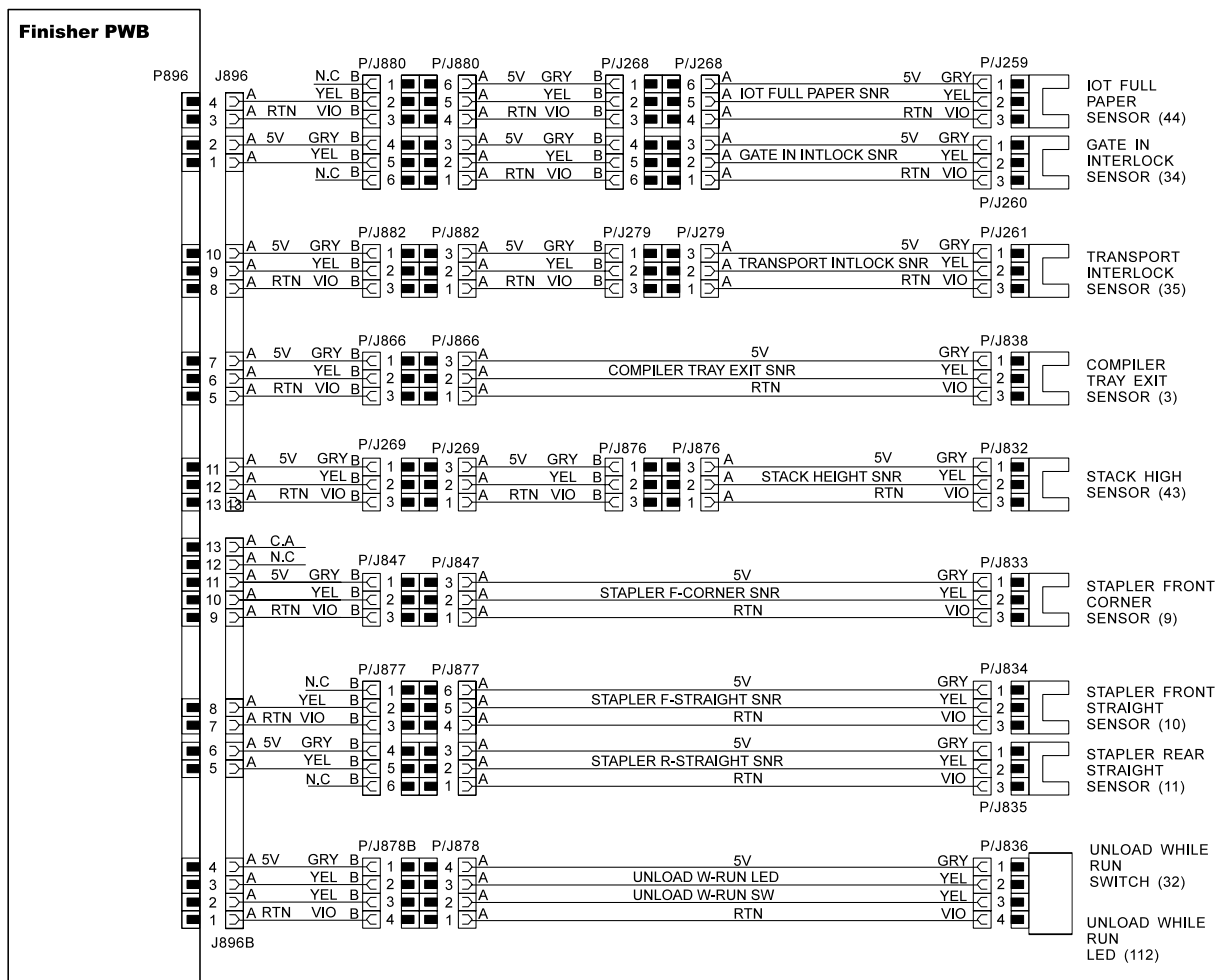
SER621XC

BD3 Stacker Sensors ´ Finisher PWB

The following table shows the signal names for the various Stacker Sensors to the Finisher PWB:

Signal Name	Description
STACKER MID PAPER SNR	Monitors paper on the Middle Tray. High=Paper present. Low=No paper
STACKER MID HALF SNR	Monitors paper level in the Middle Tray. Low=50% capacity. High=Below 50% capacity.
STACKER MID FULL SNR	Monitors paper level in the Middle Tray. Low=100% capacity (Full). High=Below 100% capacity.
STACKER MID UPPER LIMIT SNR	Monitors the upper limit of the Middle Tray. High=Upper limit reached. Low=Below upper limit.
STACKER MID LOWER LIMIT SNR	Monitors the lower limit of the Middle Tray. High=Lower limit reached. Low=Above lower limit.
STACKER LOW PAPER SNR	Monitors paper on the Bottom Tray. High=Paper present. Low=No paper
STACKER LOWER SAFETY SNR	Monitors obstructions under the Bottom Tray. High=Obstruction detected. Low=Clear
STACKER LOW HALF SNR	Monitors paper level in the Bottom Tray. Low=50% capacity. High=Below 50% capacity.
STACKER LOW FULL SNR	Monitors paper level in the Bottom Tray. Low=100% capacity (Full). High=Below 100% capacity.
STACKER LOW UPPER LIMIT SNR	Monitors the upper limit of the Bottom Tray. High=Upper limit reached. Low=Below upper limit.
STACKER LOW LOWER LIMIT SNR	Monitors the lower limit of the Bottom Tray. High=Lower limit reached. Low=Above lower limit.

BD4 Compiler, Interlock, and Stapler Sensors ' Finisher PWB



SER622XD

SER622XD

BD4 Compiler, Interlock, and Stapler Sensors ´ Finisher PWB

The following table shows the signal names for the various Compiler, Interlock, and Stapler Sensors to the Finisher PWB:

Signal Name	Description
IOT FULL PAPER SNR	Monitors paper level in the Base Printer Face Down Output Tray. High=Tray full. Low=Tray not full.
GATE IN INTLOCK SNR	Monitors the Transport Assembly position against the DOC Assembly. High=Not actuated. Low=Actuated.
TRANSPORT INTLOCK SNR	Monitors the Transport Cover. High=Transport Cover open. Low=Transport Cover closed.
COMPILER TRAY EXT SNR	Monitors paper leaving the Compiler Tray. High=Paper present. Low=No paper present.
STACK HEIGHT SNR	Monitors the height of paper in Trays 1, 2, and 3. High=Actuated. Low=Not actuated.
STAPLER F-CORNER SNR	Monitors the position of the stapler for front corner stapling. High=In position. Low=Not in position.
STAPLER F-STRAIGHT SNR	Monitors the position of the stapler for front edge stapling. High=In position. Low=Not in position.
STAPLER R-STRAIGHT SNR	Monitors the position of the stapler for rear edge stapling. High=In position. Low=Not in position.
UNLOAD W-RUN S/W	Interrupt signal sent to the Finisher PWB from the Unload While Running switch. High=Interrupt. Low=No interrupt.
UNLOAD W-RUN LED	Signal used to switch on the Interrupt LED. High=LED Off. Low=LED on.

HCS-392



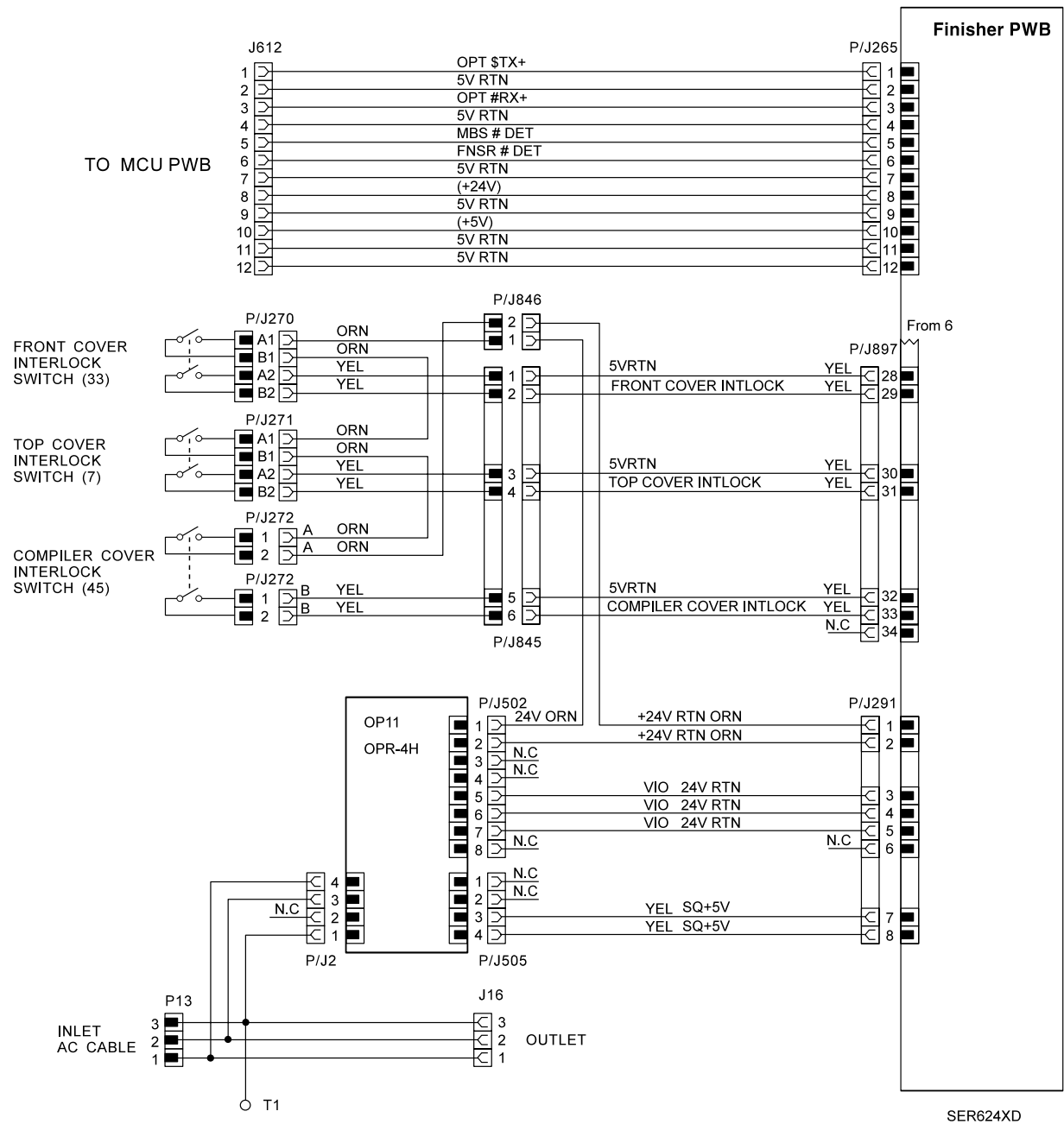
SER623XE

BD5 Tamper, Interlock, and Stacker Sensors ´Finisher PWB

The following table shows the signal names for the various Tamper, Interlock, and Stacker Sensors to the Finisher PWB:

Signal Name	Description
TAMPER HOME SNR	Monitors the position of the Tamper. High=Home position. Low=Not home position.
END WALL OPEN SNR	Monitors the position of the Compiler End Wall. High=Wall up. Low=Wall down.
EJECT CLAMP SNR	Monitors the position of the Eject Roll. High=Eject Clamp down. Low=Eject Clamp up.
SET CLAMP HOME SNR	Monitors the position of the Set Clamp. High=Home position. Low=Not in home position.
COMPILER PAPER SNR	Monitors paper on the Compiler Tray. High=Paper present. Low=No paper present.
STACKER OFF-SET HOME SNR	Monitors the position of the Eject Roll. High=Not in home position. Low=Home position.
STACKER TRAY ID SNR	Monitors the position of the Stacker Tray Unit. High=Not in position. Low=In position.
FINISHER INTLOCK SNR	Monitors the position of the HCS against the base engine. High=HCS not in place. Low=HCS in place.

BD6 Various interlocks Finisher PWB



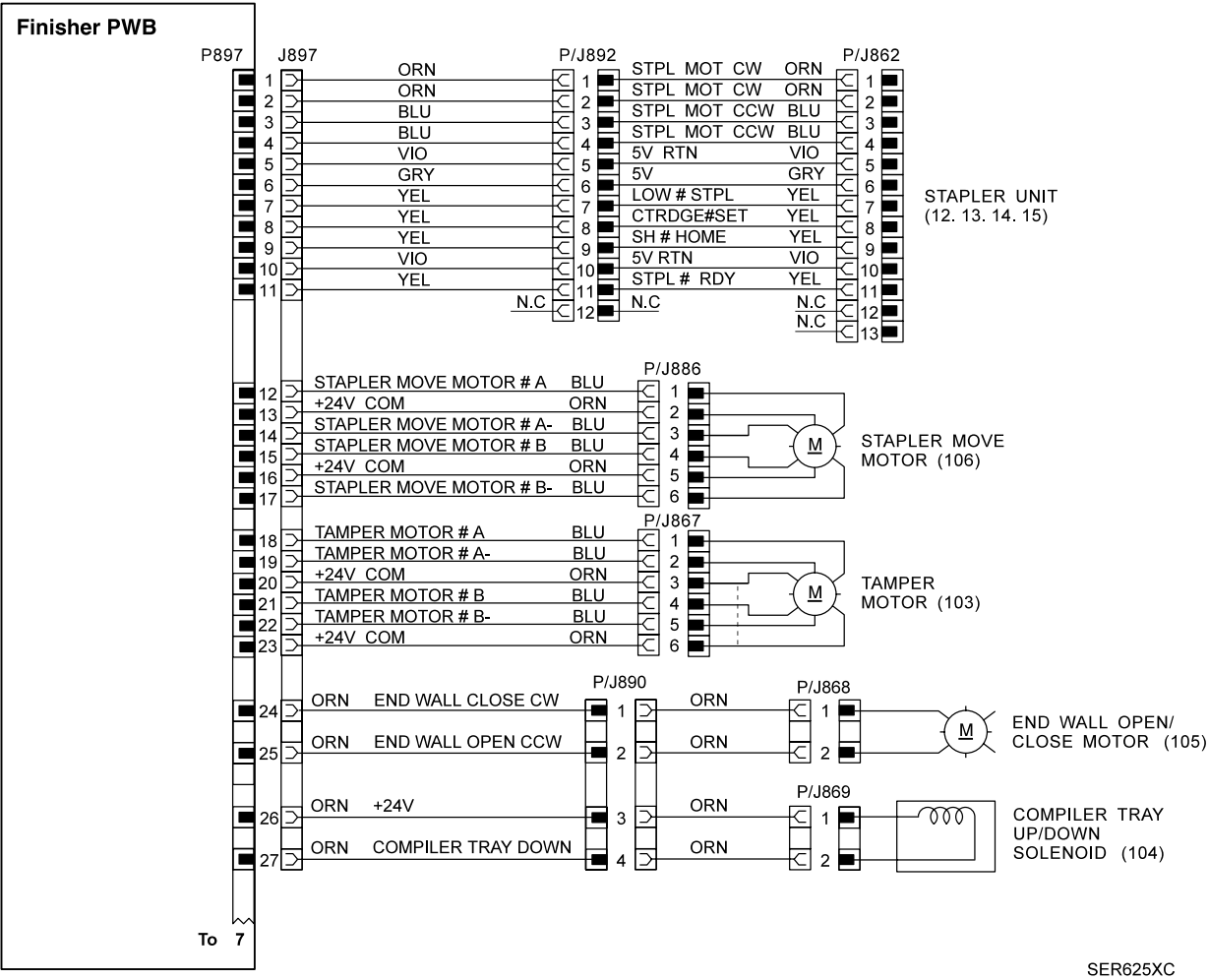
SER624XD

BD6 Various interlocks ' Finisher PWB

The following table shows the signal names for the various Interlock Switches to the Finisher PWB:

Signal Name	Description
OPT\$TX+	UART status signal from the Duplex Module to the MCU PWB. High=Mark. Low=No mark.
OPT#RX+	UART status signal from the MCU PWB to the Duplex Module. High=Mark. Low=No mark.
MBS#DET	Status signal indicating the Mailbox is installed. High=Installed. Low=Not installed.
FNSR#DET	Status signal indicating the HCS is installed. High=Installed. Low=Not installed.
FRONT COVER INTLOCK	Monitors condition of the HCS Front Cover. High=Cover open. Low=Cover closed.
TOP COVER INTLOCK	Monitors condition of the HCS Top Cover. High=Cover open. Low=Cover closed.
COMPILER COVER INTLOCK	Monitors condition of the HCS Compiler Cover. High=Cover open. Low=Cover closed.

BD7 Stapler, Compiler Tray Solenoid, Various Motors Finisher PWB



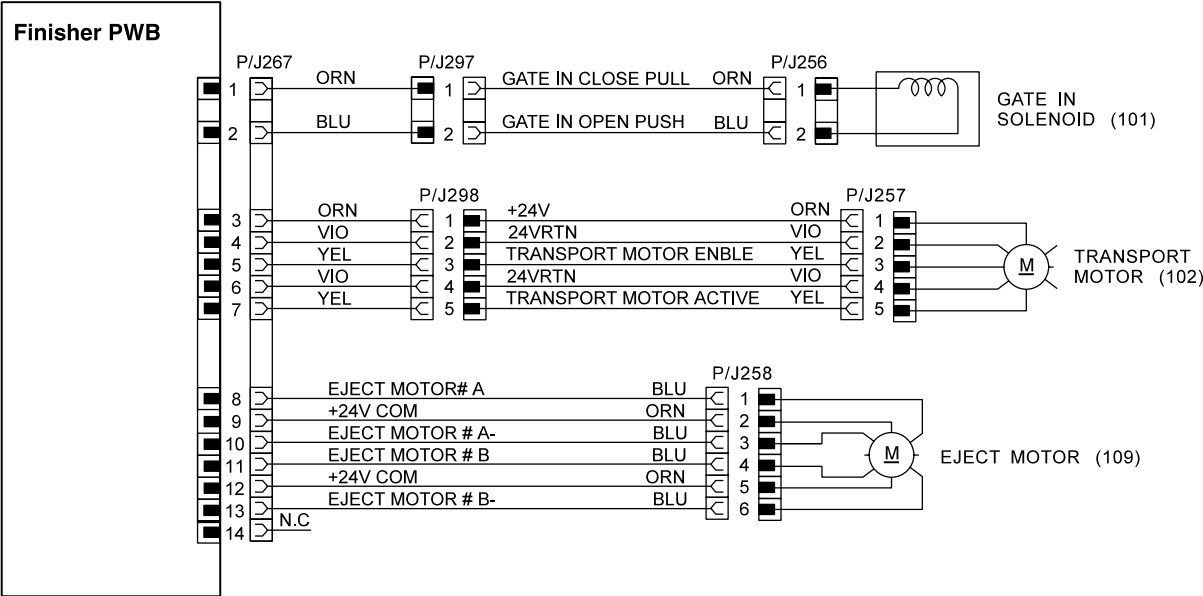
SER625XC

BD7 Stapler, Compiler Tray Solenoid, Various Motors ' Finisher PWB

The following table shows the signal names for the Stapler, Compiler Tray Solenoid, Stapler Move Motor, Tamper Motor, End Wall Motor, and Compiler Tray Up/Down Solenoid to the Finisher PWB:

Signal Name	Description
STPL MOT CW	Control signal to switch on the Stapler Motor in a clockwise direction. High=On. Low=Off
STPL MOT CCW	Control signal to switch on the Stapler Motor in a counterclockwise direction. High=On. Low=Off
LOW#STPL	Monitors the level of staples in the Stapler Cartridge. High=Level low. Low=Level acceptable.
CTRDGE#SET	Monitors the presence of the Stapler Cartridge in the Stapler Assembly. High=Cartridge installed. Low=Cartridge not installed.
SH#HOME	Monitors Stapler Head home position. High=Home position. Low=Not in home position.
STPL#RDY	Monitors the status of the Stapler Head. High=Not ready. Low=Ready
STAPLE MOVE MOTOR#A	Rotation signal for the Stapler Move Motor. High=Off. Low=On.
STAPLE MOVE MOTOR#A-	Rotation signal for the Stapler Move Motor. High=Off. Low=On.
STAPLE MOVE MOTOR#B	Rotation signal for the Stapler Move Motor. High=Off. Low=On.
STAPLE MOVE MOTOR#B-	Rotation signal for the Stapler Move Motor. High=Off. Low=On.
TAMPER MOTOR#A	Rotation signal for the Tamper Motor. High=Off. Low=On.
TAMPER MOTOR#A-	Rotation signal for the Tamper Motor. High=Off. Low=On.
TAMPER MOTOR#B	Rotation signal for the Tamper Motor. High=Off. Low=On.
TAMPER MOTOR#B-	Rotation signal for the Tamper Motor. High=Off. Low=On.
END WALL CLOSE CW	Control signal to close the End Wall during stapling. High=On. Low=Off.
END WALL CLOSE CCW	Control signal to open the End Wall after stapling. High=On. Low=Off.
COMPILER TRAY DOWN	Control signal to move the Compiler Tray down. High=Off. Low=On.

BD8 IN Gate Solenoid, Transport Motor, Eject Motor Finisher PWB



SER626XC

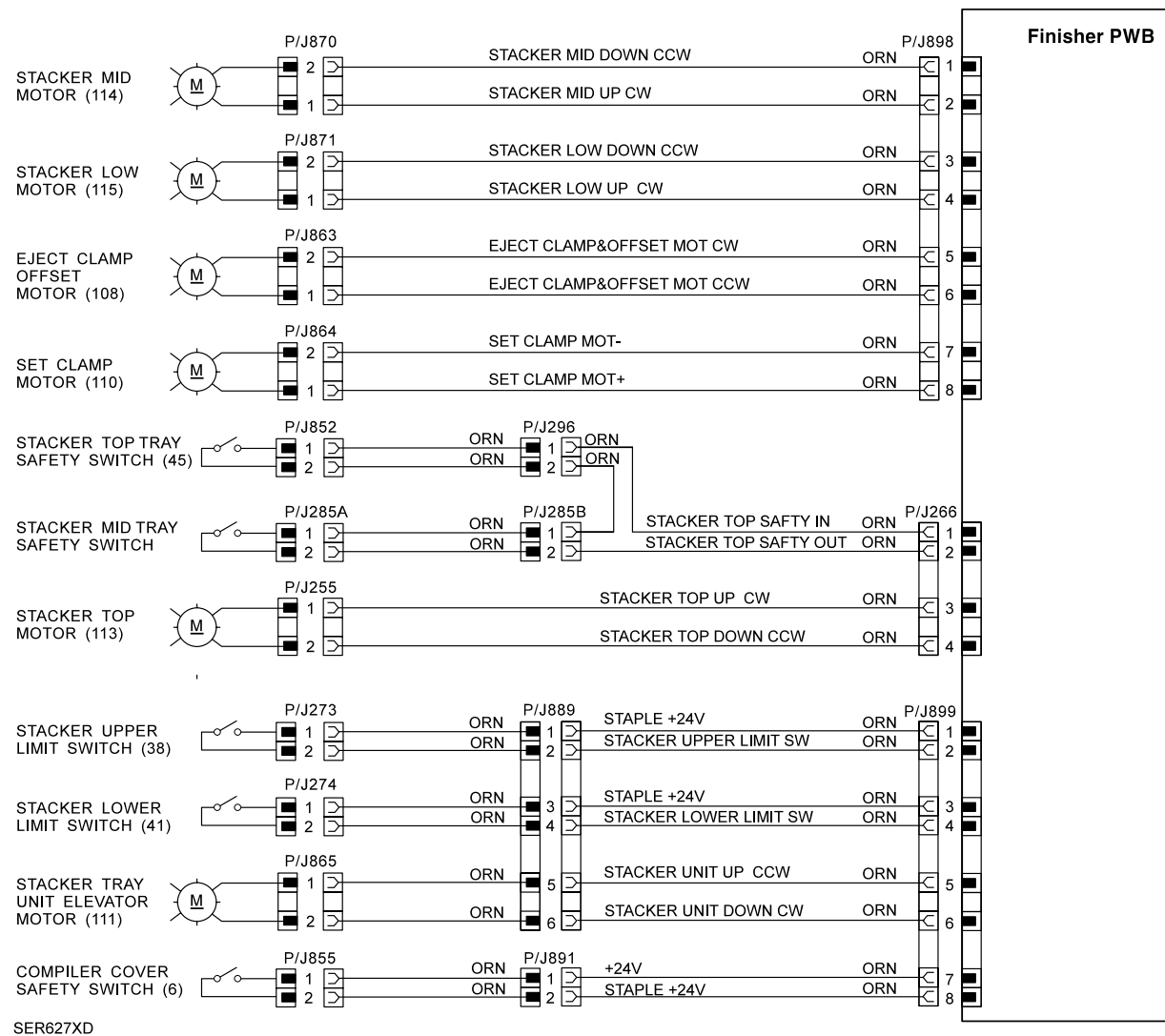
SER626XC

BD8 IN Gate Solenoid, Transport Motor, Eject Motor Finisher PWB

The following table shows the signal names for the IN Gate Solenoid, Transport and Eject Motors to the Finisher PWB:

Signal Name	Description
GATE IN CLOSE PULL	Control signal to close the Gate Solenoid. High=Close. Low=Not close.
GATE IN OPEN PUSH	Control signal to open the Gate Solenoid. High=Open. Low=Not open
TRANSPORT MOTOR ENABLE	Control signal to enable the Transport Motor. High=Disable. Low=Enable.
TRANSPORT MOTOR ACTIVE	Control signal to activate the Transport Motor. High=Inactive. Low=Activate
EJECT MOTOR #A	Control signal to switch on the Stapler Motor in a clockwise direction. High=On. Low=Off
EJECT MOTOR #A-	Control signal to switch on the Stapler Motor in a clockwise direction. High=On. Low=Off
EJECT MOTOR #B	Control signal to switch on the Stapler Motor in a clockwise direction. High=On. Low=Off
EJECT MOTOR #A	Control signal to switch on the Stapler Motor in a clockwise direction. High=On. Low=Off

HCS-400



BD9 Various Motors' Finisher PWB

The following table shows the signal names for various Motors to the Finisher PWB:

Signal Name	Description
STACKER MID DOWN CCW	Control signal to move the Stacker Mid down.
STACKER MID UP CW	Control signal to move the Stacker Mid up.
STACKER LOW DOWN CCW	Control signal to move the Stacker Low down.
STACKER LOW UP CW	Control signal to move the Stacker Low up.
EJECT CLAMP & OFFSET MOT CW	Control signal to move the Eject Clamp Offset down.
EJECT CLAMP & OFFSET MOT CCW	Control signal to move the Eject Clamp Offset up.
SET CLAMP MOT-	Control signal to move the Set Clamp Offset Motor.
SET CLAMP MOT +	Control signal to move the Set Clamp Offset Motor.
STACKER TOP SAFETY IN	Monitors obstructions in the lower part of the Top and Middle Trays.
STACKER TOP SAFETY OUT	Monitors obstructions in the lower part of the Top and Middle Trays.
STACKER TOP UP CW	Control signal to move the Stacker Top up.
STACKER TOP DOWN CCW	Control signal to move the Stacker Top down.
STACKER UPPER LIMIT SW	Monitors upper limit of Stacker travel. H= Stacker at upper limit. L= Stacker not at upper limit.
STACKER LOWER LIMIT SW	Monitors lower limit of Stacker travel. H= Stacker at lower limit. L= Stacker not at lower limit.
STACKER UNIT UP CCW	Control signal to move the Stacker Tray Unit up.
STACKER UNIT DOWN CW	Control signal to move the Stacker Tray Unit down.

Section 11 - High Capacity Stacker Specifications

General Specifications

Category	Specification
Configuration	Customer installed option. Attaches to the right side of the printer, with part of the HCS extending over the printer output tray. The HCS cannot be installed if the Mailbox option is installed. The HCS has two modes: 1- Sort and 2- Staple and Sort.
Paper requirements	Standard Xerox DP 20lb paper
Power requirements	The Printer provides all of the HCS power requirements; +5VDC and +24VDC. The Printer also provides filtered 110AC, which the HCS converts into +5VDC and an interlock controlled +24VDC.
Power consumption	The HCS consumes 40W (110VAC) or 45W (220VAC) during operation.
HCS noise levels	64 db while running
Size and weight	Height: 1,133mm Width: 582mm Depth: 658mm Weight: 58kg

Stapler Specifications

Category	Specification
Stapler specifications	The HCS Stapler can staple a maximum stack size of 50 sheets of standard paper. The user can specify front staple (angled), front edge staple (parallel to the paper edge) rear staple (angled), or dual staples (front and rear parallel to the paper edge).
Staple Cartridge	Contains 5,000 staples

Compiler Specifications

Category	Specification
Compiler specifications	The HCS Compiler aligns the sides of the paper stack (tampers) before delivering it to the Stacker. The user can specify front staple (angled), front edge staple (parallel to the paper edge) rear staple (angled), or dual staples (front and rear parallel to the paper edge).
Maximum quantity of paper per set	50 sheets
Minimum size of paper	182mm wide

Stacker Specifications

Category	Specification
Stacker specifications	The HCS has 3 output trays; upper, middle, and lower.
Maximum amount of unstapled paper per tray	600 sheets of unstapled standard paper
Maximum amount of stapled paper per tray	30 sets of stapled A4/Letter per tray 15 sets of rear stapled (B5 LEF, B5, B4 SEF) 15 sets of dual stapled (B5 SEF)

Offset Specifications

Category	Specification
Offset specifications	The HCS delivers paper to the output trays with 20mm offset sheet to sheet

Paper Sizes Recommended for use with the High Capacity Stacker

Type	Size
Ledger (SEF)	11" x 17"
A3 (SEF)	297mm x 420mm
B4 (SEF)	247mm x 364mm
Legal 14"	8.5" x 14"
Legal 13"	8.5" x 13"
A4 (SEF, LEF)	210mm x 297mm
Letter (SEF, LEF)	8.5" x 11"
B5 (SEF, LEF)	182mm x 257mm
Executive (LEF)	7.25" x 10.5"
A5 (SEF)	149mm x 210mm
Statement (SEF)	5.5" x 8.5"